22A

24 Volt, Constant-Speed Wire Feeder

Index No. M/11.0
Issued Dec. 1999

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding (Gas- and Self-shielded)

TRUE BLUE® 3YR. WARRANTY

Simple to use but with all the features needed for the industrial manufacturing and fabricating markets. Built with the strength and flexibility to handle strenuous work loads, the 22A delivers proven reliability and economy.

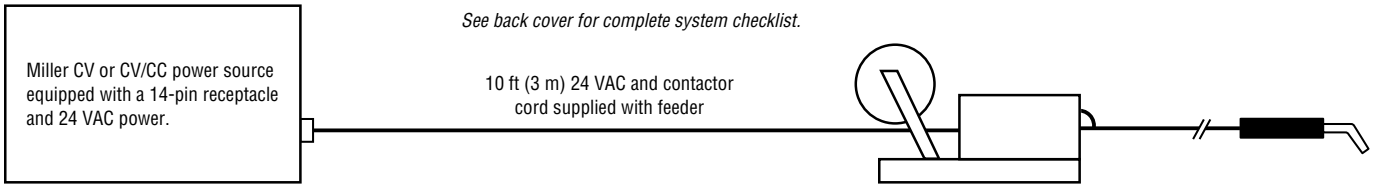
This wire feeder is ideal for most high-duty-cycle applications requiring day-in day-out trouble-free operation.

Applications

- Light-duty fab shops
- Trailer manufacturers
- Furniture manufacturers
- Automotive products
- Educational institutions

Features	Benefits
Increased wire-feed-speed range	The 22A wire-feed-speed range is 75–750! This offers a wider operating range than the competition.
Trigger hold control	Allow operator to make long extended welds without having to hold gun trigger.
Gear-driven drive rolls	Offers smooth, positive and accurate wire feed with long, uninterrupted service life.
On-board burnback and motor ramp control	Unmatched starting and stopping performance on a variety of power sources. This helps to ensure positive arc starting performance.
16 gauge sheet metal housing	Robust in rough service applications. Less prone to damage.
Optional presettable voltage and wire feed speed	Allows voltage and wire feed speed to be preset and monitored. Does not require a volt sense lead.
Miller's True Blue® Warranty	Wire feeder is warranted for 3 years — parts and labor.

Typical Installation


Miller CV or CV/CC power source equipped with a 14-pin receptacle and 24 VAC power.
See back cover for complete system checklist.
10 ft (3 m) 24 VAC and contactor cord supplied with feeder

Note: For power sources only supplying 115 VAC power the R-115 (#193 164) model is recommended.

Specifications *(Subject to change without notice.)*

Industrial CV *(Use with CV Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Wire Speed	Dimensions	Net Weight
24 VAC, 7 A, 50/60 Hz	.023–5/64 in (0.6–2.0 mm)	75–750 IPM (1.9–19 m/min)	H: 11 in (279 mm) W: 10-3/4 in (273 mm) D: 23-1/2 in (597 mm)	36 lb (15.4 kg)

Certified by Canadian Standards Association to both Canadian and U.S. Standards.

Ordering Information

☞ See back page.

Miller® The Power of Blue.

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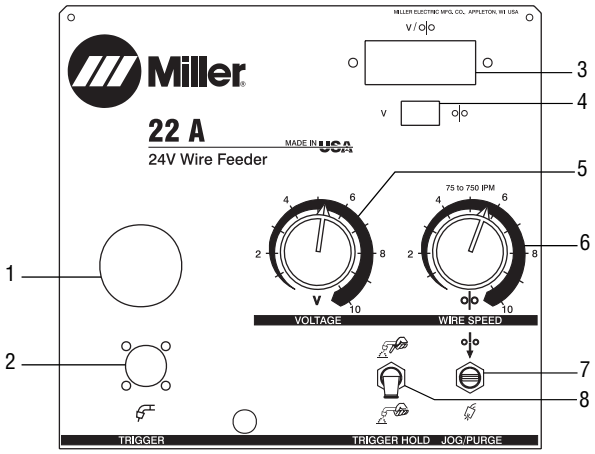
ISO 9001 REGISTERED QUALITY SYSTEM

Control Panel

1. Gun Connection
2. Trigger Receptacle
3. Voltage/Wire Speed Meter*
4. Meter Selection Switch*
5. Remote Voltage Control*
6. Wire Speed Control
7. Jog/Purge
8. Trigger hold (On/Off)

Power On/Off (on rear panel)

**Optional*



Drive Roll Kits *(Order from Miller Service Parts.)*

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023 / .025 in (0.6 mm)	**#087 131**	—	—	—
.030 in (0.8 mm)	**#079 594**	—	—	—
.035 in (0.9 mm)	**#079 595**	**#044 749**	**#079 606**	—
.040 in (1.0 mm)	**#161 189**	—	—	—
.045 in (1.1/1.2 mm)	**#079 596**	**#079 599***	**#079 607**	**#083 318**
.052 in (1.3/1.4 mm)	**#079 597**	**#079 600**	**#079 608**	**#083 317**
1/16 in (1.6 mm)	**#079 598**	**#079 601**	**#079 609**	**#079 614**
.068/.072 in (1.8 mm)	—	—	**#089 984**	—
5/64 in (2.0 mm)	—	**#079 602**	**#079 610**	**#079 615**

**Accommodates .045 and .047 (3/64) wires.*

Nylon Wire Guides for Feeding Aluminum Wire *(Order from Miller Service Parts.)*

Wire Size	Inlet Guide
.035 – .047 in (1.2 mm) 1/16 in (1.6 mm)	**#151 203** **#151 205**

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Options

Skill Level Index
The bracketed entry to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.

B– Average. Requires removal of service panels. Mechanical ability is helpful.

C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.

D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:

[B: 30] Skill Level: B, Time: 30 minutes

Digital Display V/WFS #186 498 Field **[B: 30]**
Dual-function, back-lit LCD digital meter with selector switch. The digital meter allows the wire feed speed to be preset in inches per minute or meters per minute. The voltage function, if used with a current manufactured Miller electronically controlled constant voltage power source, allows the arc voltage to be preset and monitored on the digital display. When used with voltage control **#194 211**.

Voltage Control #194 211 Field **[A: 15]**
Installs in front panel of the feeder to allow remote voltage control of most Miller electrically controlled CV or CC/CV power sources.
Note: The field kit voltage control includes a 10 ft (3 m) cord that replaces the standard cord supplied with the feeder.

Run-In Control #193 391 Field **[A: 25]**
A separate wire feed speed adjustment to control wire speed prior to arc initiation. This control may be beneficial to aid arc starting with certain types of power sources.

Preflow/Postflow and Spot Control #186 496 Field **[A: 25]**
Installs inside feeder under an easy access hinged cover. Provides up to 5 seconds of spot weld time and has adjustable timers (0.25 to 5 seconds) for controlling gas flow prior to arc initiation and after completion of weld.

Accessories

Blue Runner #043 965
Simple, convenient, and easy-to-assemble running gear for the XMT-304 and Invision 354MP. Designed for factory floor MIG applications using the 22A or S-60 Series wire feeders.

Carrying Cart #056 301 [A: 30]
A utility cart for the wire feeder and other miscellaneous welding supplies. Height: 34 in (863 mm) Lower tray height: 9 in (228 mm) Shipped disassembled.

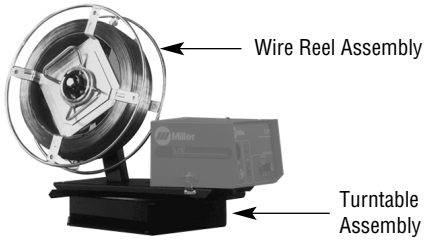
Feeder Cart #142 382 [A: 20]
A low-profile, creeper cart which allows the operator to easily move the feeder around the work area. Shipped disassembled.

Carrying Handle #193 762
For lifting and moving feeder. (Cannot be used with wire reel assembly **#108 008**.)

Hanging Bail #058 435 [A: 05]
Suspends feeder over the work area.

Reel Cover #058 256 [A: 05]
For 60 lb (27.2 kg) coil.

Spool Cover #057 607 [A: 05]
For 12 in (304 mm) spool.



Wire Reel Assembly #108 008 [A: 05]
For 60 lb (27.2 kg) coil of wire. (Cannot be used with carrying handle **#193 762**.)

Turntable Assembly #146 236 [B: 20]
Allows rotation of feeder as operator changes work positions. This reduces strain and bending on gun cable.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

PSA-2 Control #141 604 [A: 10]
Required when using the 22A wire feeder with power sources having only 115 VAC available. The PSA-2 control can be conveniently mounted on the wire feeder or positioned at the power source. The control is equipped with a 14-pin receptacle for direct connection of the wire feeder control cord. A short cord with a 4-pin Amp plug is hard wired to the control. A 10 ft (3 m) interconnecting cord with a 4-pin Amp for connection to the PSA-2 and Hubbell connectors for older-style Miller CV power sources is included. The PSA-2 control can also be used with competitive power sources requiring a contact closure for contactor control.

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15 m)
#122 975 75 ft (23 m)
These extension cords can be added to the standard 10 ft cord to extend feeder farther from the power source.

2/0 MIG Welding Accessory Kit #173 856
25 ft (7.6 m). Includes gas hose, weld cable and ground cable with clamp.

M-25 and M-40 Guns
See Lit. Index No. M/10.0.

GW-500 Gun
See Lit. Index No. M/13.4.

System Checklist and Quotation Sheet

Equipment and Options	Stock No.	Description	Qty.	Price
22A	**#193 066** **#193 066-01-1** **#193 066-02-2**	 With run-in control With digital display and voltage control		
Drive Roll Kit		See table on page 2		
Digital Display Meter	**#186 498**	Field		
Voltage Control	**#194 211**	Field		
Run-In Control	**#193 391**	Field		
Preflow/Postflow and Spot Control	**#186 496**	Field		
Power Sources				
Regency 250 Package		See Lit. Index No. DC/12.6		
CP-302		See Lit. Index No. DC/13.0		
CP-252TS		See Lit. Index No. DC/13.0		
Deltaweld 302		See Lit. Index No. DC/16.2		
Shopmaster		See Lit. Index No. AD/2.3		
XMT-304 CC/CV		See Lit. Index No. DC/18.8		
Invision 354 MP		See Lit. Index No. DC/23		
Accessories				
Blue Runner	**#043 965**			
Carrying Cart	**#056 301**			
Feeder Cart	**#142 382**			
Carrying Handle	**#193 762**			
Hanging Bail	**#058 435**			
Reel Cover	**#058 256**	For 60 lb coil		
Spool Cover	**#057 607**	For 12 in spool		
Wire Reel Assembly	**#108 008**			
Turntable Assembly	**#146 236**			
Spool Adapter	**#047 141**	For 14 lb spool of Lincoln self-shielding wire		
PSA-2 Control	**#141 604**			
Extension Cords	**#122 973** **#122 974** **#122 975**	25 ft 50 ft 75 ft		
2/0 MIG Accessory Kit	**#173 856**			
Interconnecting Cable	**#043 695** **#043 696** **#043 697**	10 ft 25 ft 75 ft		
M-25 and M-40 MIG Guns		See Lit. Index No. M/10.0		
GW-500 MIG Gun		See Lit. Index No. M/13.4		
Miscellaneous				
Primary Power Cable				
Secondary Weld Cable				
Ground Cable with Work Clamp				
Gas Cylinder				
Gas Hose with Fittings				
Regulator/Flowmeter				
Welding Wire				
Helmet				
Welding Gloves				
Date:		**Total Quoted Price:**		

Distributed by:

Miller®
The Power of Blue.

Litho in USA

60 Series

Single and Dual Semiautomatic, Constant-Speed Wire Feeders

Index No. M/2.0
Issued June 2001

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding (Gas- and Self-shielded)

TRUE BLUE® 3YR. WARRANTY

S-60 Model

D-60 Model

Outstanding performance in the most demanding MIG applications—that's the 60 Series heavy-duty wire feeder. Designed with flexibility in mind, the 60 Series offers multiple configurations. A customer can start with a simple system, and add options as welding needs change. Performance and flexibility meet virtually every job requirement with the 60 Series.

Applications

- Heavy equipment manufacturing
- Automotive products
- Rail car
- Heavy steel fabricators
- Agricultural
- Tank manufacturing
- Industrial equipment manufacturing
- Commercial equipment manufacturing
- Trailer manufacturing

Features	Benefits
New! **Optional run-in control**	A separate wire feed adjustment to control wire speed prior to arc initiation.
Unique Posifeed™ wire drive system	Provides positive wire feeding performance.
Easy loading and threading of welding wire	Wire threads easily through drive system without having to release the drive roll pressure arm.
Rotatable drive assembly	Reduces sharp bends in the gun cable. Improves wire feeding performance and extends the service life of the gun liner.
Solid-state speed control and brake circuit	Excellent speed control and regulation. Eliminates the need for electrical/mechanical relays. Increased service life.
Two sealed ball bearing all-gear-driven drive-roll carriers	Offers a smooth, positive and accurate wire feed with long uninterrupted service life.
Quick-change drive rolls	No tools required to change or service drive rolls.
Gas purge control	Purges gas line without feeding wire.
Wire jog control	Feeds welding wire without energizing contactor.
Quick-release, calibrated drive-roll pressure-adjustment arm	Allows drive roll change without losing spring preload setting. Reduced weld cycle time.
Two to four drive roll conversion	Allows two-drive-roll feeder to be quickly, easily and economically converted to a four-drive-roll feeder. (Requires optional Drive Roll Conversion Kit.)
Accommodates a variety of internally installed, plug-in options	Easy to upgrade feeder as the customers needs and requirements change.
Optional trigger hold	Reduces fatigue by allowing the operator to weld without holding the gun trigger.

Specifications *(Subject to change without notice.)*

Heavy Industrial CV *(Use with CV Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Wire Speed	Dimensions S-60	Dimensions D-60	Net Weight S-60	Net Weight D-60
24 VAC, 10 A, 50/60 Hz	.023–1/8 in (0.6–3.2 mm)	50–780 IPM (1.3–19.8 m/min)	H: 13-1/4 in (337 mm) W: 13 in (330 mm) D: 26-1/2 in (673 mm)	H: 13-1/2 in (343 mm) W: 17-1/2 in (445 mm) D: 32-1/4 in (819 mm)	43 lb (19.5 kg)	74 lb (33.6 kg)

* *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

** *50/60 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.*

Ordering Information

☞ See back page.

MADE IN USA
APPLETON, WI

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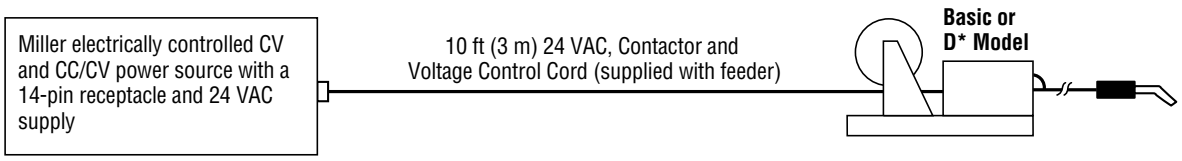
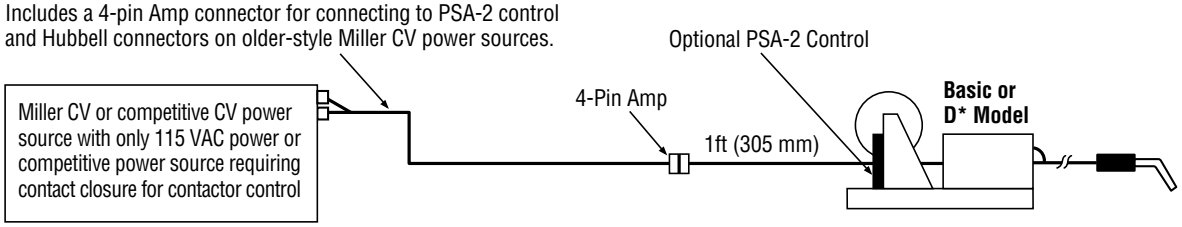
Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

Typical Installations


Miller electrically controlled CV and CC/CV power source with a 14-pin receptacle and 24 VAC supply
10 ft (3 m) 24 VAC, Contactor and Voltage Control Cord (supplied with feeder)
Basic or D* Model

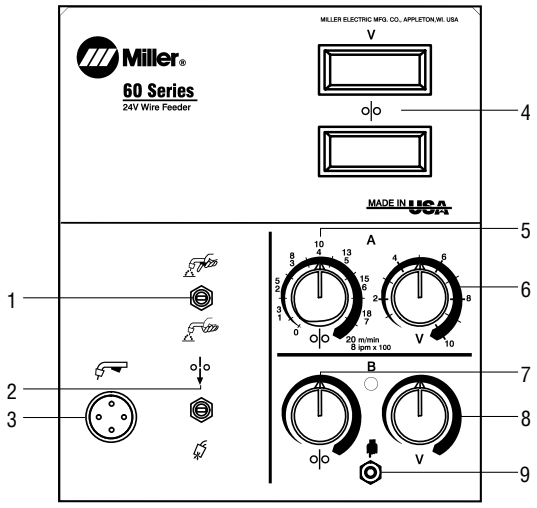

10 ft (3 m) interconnecting cord included with PSA-2 control. Includes a 4-pin Amp connector for connecting to PSA-2 control and Hubbell connectors on older-style Miller CV power sources.
Optional PSA-2 Control
Miller CV or competitive CV power source with only 115 VAC power or competitive power source requiring contact closure for contactor control
4-Pin Amp
1ft (305 mm)
Basic or D* Model

**When using the D model with Miller power sources that DO NOT have remote voltage control capabilities, i.e., CP type, the voltage control in the feeder IS NOT functional.*

Note: If using the S-60 or D-60 with a power source having only 115 VAC supply, the PSA-2 (Power Source Adapter) is required. When using the PSA control, optional remote voltage is not functional.

Control Panels

Single 60 Series



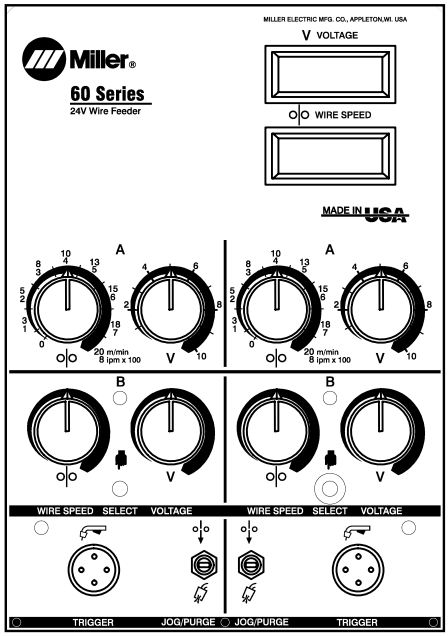
S-62 and S-64

1. Trigger Hold Control*†
2. Jog/Gas Purge Switch
3. Trigger Receptacle
4. Voltage and Wire Speed Meters*
5. Wire Speed Control
6. Voltage Control*
7. Wire Feed Speed
8. Voltage Control for Dual Schedule*
9. Press to Set Schedule B*

Note: Power on/off switch is on back panel

†Dual model trigger hold located on side panel
**Optional*

Dual 60 Series

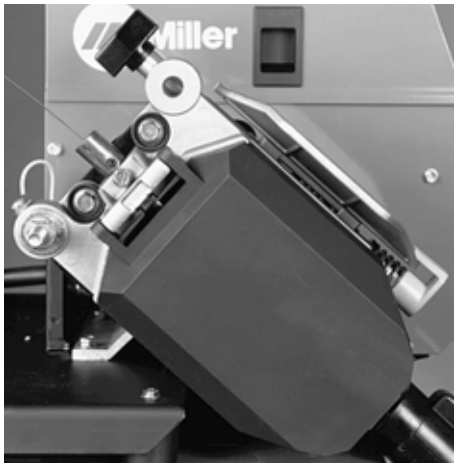


D-64

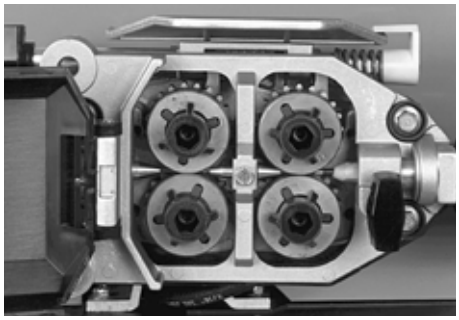
D-64 (dual) models have two sets of the controls.

Posifeed Wire Drive Assembly Features

- 24 VDC high-torque, permanent-magnet motor.
- Quick-change drive rolls.
- Quick-release, calibrated drive roll pressure adjustment arm allows drive roll change without losing spring preload setting.
- Simple conversion from two-drive-roll to four-drive-roll feeder
- Rotatable drive assembly helps eliminate sharp bend in gun cable.
- Easy loading and threading of welding wire.
- Uses Miller standard 1-5/8 in (41 mm) diameter drive rolls.
- Quick-connect for all Miller guns
- Covered drive rolls — easy access, heavy-duty, molded composite cover over drive assembly.
- Floating positive drive systems provide trouble-free feeding on a variety of wires.



Drive assembly rotated.


Four-Drive-Roll Model

Drive Roll Kits *(Order from Miller Service Parts.)*

Select drive roll kits from chart below according to type and wire size being used and the type of wire drive assembly (two-drive-roll or four-drive-roll system). Drive roll kits include the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire size	"V" groove for hard wire		"U" groove for soft wire or soft-shelled cored wires		"V" knurled for hard-shelled cored wires		"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)	
	2 Rolls	4 Rolls	2 Rolls	4 Rolls	2 Rolls	4 Rolls	2 Rolls	4 Rolls
.023 / .025 in (0.6 mm)	#151 030	#151 024	—	—	—	—	—	—
.030 in (0.8 mm)	#151 031	#151 025	—	—	—	—	—	—
.035 in (0.9 mm)	#151 032	#151 026	#151 044	#151 036	#151 061	#151 052	—	—
.040 in (1.0 mm)	#161 189	#161 190	—	—	—	—	—	—
.045 in (1.1/1.2 mm)	#151 033	#151 027	#151 045*	#151 037*	#151 062	#151 053	#151 077	#151 070
.052 in (1.3/1.4 mm)	#151 034	#151 028	#151 046	#151 038	#151 063	#151 054	#151 078	#151 071
1/16 in (1.6 mm)	#151 035	#151 029	#151 047	#151 039	#151 064	#151 055	#151 079	#151 072
.068/.072 in (1.8 mm)	—	—	—	—	#151 065	#151 056	—	—
5/64 in (2.0 mm)	—	—	#151 048	#151 040	#151 066	#151 057	#151 080	#151 073
3/32 in (2.4 mm)	—	—	#151 049	#151 041	#151 067	#151 058	#151 081	#151 074
7/64 in (2.8 mm)	—	—	#151 050	#151 042	#151 068	#151 059	#151 082	#151 075
1/8 in (3.2 mm)	—	—	#151 051	#151 043	#151 069	#151 060	#151 083	#151 076

***** *Accommodates .045 and .047 (3/64 in) wire*

Nylon Wire Guides for Feeding Aluminum Wire

(Order from Miller Service Parts.)

Wire Size	Inlet Guide	Intermediate Guide
.047 in (1.2 mm)	#151 203	#151 204
1/16 in (1.6 mm)	#151 205	#151 206
3/32 in (2.4 mm)	#151 207	#151 208

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023 – .040 in (0.6 – 1.0 mm)	#150 993	#149 518
.045 – .052 in (1.1 – 1.4 mm)	#150 994	#149 519
1/16 – 5/64 in (1.6 – 2 mm)	#150 995	#149 520
3/32 – 7/64 in (2.4 – 2.8 mm)	#150 996	#149 521
1/8 in (3.2 mm)	#150 997	#149 522

Options

Skill Level Index
The box to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:
[B: 30] Skill Level: B, Time: 30 minutes

Digital Meters with Presettable WFS and Voltage Control

For S-60 model
#180 313 Field **[B: 45]**
For D-60 model
#180 315 Field **[B: 1:20]**

Meters use a back-lit liquid crystal display which are easy to read in virtually any lighting condition. The display and the ten-turn potentiometers allow the power source voltage and wire feed speed to be accurately preset on the digital meters. Once the arc is established, actual arc voltage and wire feed speed is displayed.

Note: This option is compatible with the following Miller electronically controlled CV or CC/CV power sources:

Power Source	***Effective Serial No.***
Invision	*all*
Phoenix	*all*
XMT 304	*all*
Deltaweld (any)	*serial no. KG141349 and newer*
Dimension	*serial no. KG253517 and newer*
Maxtron 450	*serial no. KG111783*

For power sources manufactured prior to these serial numbers, and for any Dimension power sources, please consult the factory. ***For mechanically controlled power sources, such as the CPs, the voltage control is not functional.***

Digital Voltage Control

For S-60 model **[B: 20]**
#134 382
For D-60 model **[B: 25]**
#138 549

Digital Meters (With wire feed speed)

For S-60 model **[B: 45]**
#172 734
For D-60 model **[B: 1: 20]**
#172 735

New! Run-In Control

For S-60 model **[A: 25]**
#194 682
For left or right side
For D-60 model **[A: 50]**
#194 680

A separate wire feed adjustment to control wire speed prior to arc initiation.

Ground Current Sensor #160 963

Required when connecting to Deltaweld prior to KG141349 or Dimension prior to KG253517 or Maxtron KG111783.

Digital Dual Schedule Control

For S-60 model
#173 751 Field **[B: 40]**
For right side of D-60 model
#172 826 Field **[B: 40]**
For left side of D-60 model
#173 749 Field **[B: 20]**

Allows two separate welding conditions (voltage and wire feed speed) to be used with one wire. The parameters can be accurately preset on the digital meters.

Note: The Digital Meters option (listed above) is required to install the Digital Dual Schedule Control. Select an appropriate Dual Schedule Switch (see Accessories).

Voltage Control (Non-Digital)

For S-60 model
#133 425 Field **[A: 10]**
For D-60 model
#138 527 Field **[A: 10]**

Installs in front panel of feeder to allow remote voltage control of Miller electrically controlled CV or CC/CV power sources having a 14-pin receptacle.

S-model trigger hold control on front panel

4-in-1 Control

For S-60 model
#132 138 Field **[A: 15]**
For left or right side of D-60 model
#138 543 Field **[A: 15]**

Includes: spot/burnback and preflow/postflow.

This control is mounted on an inside panel and includes 0 (zero) to 5 second gas preflow and postflow control, up to 5 seconds of spot weld time, and up to 0.25 seconds of burnback control.

Control Detachment Kit (installed only)

For S-60 model
#134 936 Field 10 ft (3 m)
#134 937 Field 25 ft (7.6 m) **[B: 55]**
For D-60 model
#134 935 Field 25 ft (7.6 m) **[B: 1:00]**

Allows separation of the control module from the wire drive assembly and base.

Drive Roll Conversion Kit

For feeder manufactured with serial number KE-756284 or newer.
#172 104 **[A: 10]**

For feeder manufactured prior to serial number KE-756284.
#132 128 **[A: 10]**

Allows an existing S-62 or D-62 to be easily converted from a two-drive-roll to a four-drive-roll feeder. (Must order one kit for each side of dual models.)

Water Flow Shutdown Switch
#180 390

Coolant protects the water-cooled gun from overheating if water is not present or stops flowing to the gun.

Burnback Control

For S-60 model **[A: 20]**
#132 140
For left or right side of D-60 model **[A: 20]**
#138 541

Burnback control up to 0.25 seconds

Trigger Hold

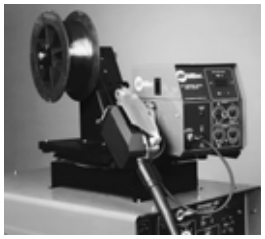
For S-60 model
#189 893 Field **[A: 15]**
For D-60 model
#189 894 Field **[A: 20]**

Allows the operator to make long, extended welds without having to hold the gun trigger.

Accessories

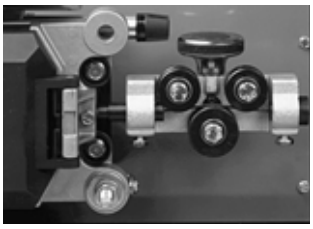
Carrying Cart
#056 301 [A: 30]
A utility cart for the wire feeder and other miscellaneous welding supplies. Height: 34 in (863 mm) Lower tray height: 9 in (228 mm) Shipped disassembled.

Feeder Cart #142 382 [A: 20]
A low-profile, creeper cart which allows the operator to easily move the feeder around the work area. Shipped disassembled.



Turntable Assembly #146 236 [B: 20]
Allows rotation of the feeder as the operator changes work positions. Reduces strain and bending on the gun cable.

Hanging Bail (Electrically Isolated)
#058 435 [A: 05]
Used for suspending feeder over work area.



Wire Straightener
For .035–.045 in (0.9–1.1 mm) dia. wire
#141 580 [A: 05]
For 1/16–1/8 in (1.6–3.2 mm) dia. wire
#141 581 [A: 05]
Helps reduce the cast in wire to improve wire feeding performance and increase the service life of the gun liner and contact tip.

Spool Covers
For S-60 and left side of D-60 model
#057 607
For right side of D-60 model
#090 389
For 12 in (305 mm) spool.

Wire Reel Assembly #108 008
For 60 lb (27 kg) coil of wire.

Reel Covers
For S-60 and left side of D-60 model
#058 256
For right side of D-60 model
#091 668
For 60 lb (27 kg) coil. Helps to protect the welding wire from dust and other contaminants.
Note: Reel and Spool Covers cannot be installed if the wire drive assembly is in a rotated position.

Compression Spring #057 745
Required when using 8 in (203 mm) diameter 10 lb (4.5 kg) and 15 lb (6.8 kg) spools of wire.

Spool Adapter #047 141
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Process Selector Control #042 872
Allows you to easily change weld processes without changing cables — from TIG to MIG or TIG to Stick. Can also connect two wire feeders with one power source.

2/0 MIG Welding Accessory Kit
#194 779 10 ft (3.1 m)
#173 856 25 ft (7.6 m)
#173 851 50 ft (15.2 m)
Includes gas hose, weld cable and ground cable with clamp.

Polarity Reversing Isolation Control
For D-60 model only. **#042 871** [A: 15]
A dual-function control designed for use with the D-60 dual-wire feeder or any application where electrical isolation and/or polarity reversing capabilities are required. For example, one wire of the D-60 feeder can be electrically cold while welding with the other wire. The wires can also be run on opposite or the same polarity (straight or reverse). Both functions can be performed at the same time.
Note: Includes bracket to mount control on top of dual feeder.

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (23 m)
Provides 14-pin, 24 VAC, contactor and voltage control. Add to the standard 10 ft (3 m) feeder cord to extend feeder farther from power source.

PSA-2 Control
#141 604 [A: 10]
Required when using the S-60 and D-60 wire feeders with power sources having only 115 VAC available. The PSA-2 control can be conveniently mounted on the wire feeder or positioned at the power source. The control is equipped with a 14-pin receptacle for direct connection of the wire feeder control cord. A short cord with a 4-pin Amp plug is hard wired to the control. A 10 ft (3 m) interconnecting cord with a 4-pin Amp for connection to the PSA-2 and Hubbell connectors for older-style Miller CV power sources is included. The PSA-2 control can also be used with competitive power sources requiring a contact closure for contactor control.

Accessories (Continued)

Extension Cord #047 813
25 ft (7.6 m). Can be used to extend the 10 ft cord supplied with the PSA-2 control (4-pin Amp to 4-pin Amp connection).

Dual Schedule Switches

For use with digital dual schedule control.

DSS-8 #079 693 [A: 05]
A two-position trigger switch which attaches to the gun handle and is used **in place of** the standard trigger for dual scheduling.

DSS-9 #071 833 [A: 05]
A two-position slide switch which attaches to the gun handle and is used to select the desired welding condition for dual schedule purposes. The gun trigger operates as a standard gun trigger.

Adapter Cord #157 364
A 1 ft, Y-trigger cable that connects DSS switch and control box to the gun.

Guns

GW-500 Gun
See Lit. Index No. M/13.4

M-25, M-40 Guns
See Lit. Index No. M/10.0

International Gun Adapter #164 902

Water Coolant Systems

For more information, see Miller Coolant Systems Lit. Index No. AY/7.2.

Coolmate 3
#043 007 115 VAC
#043 008 230 VAC
For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate V3 #043 009 115 VAC
For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

Coolmate 4 #042 288
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolant #043 810
Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37˚F (-38˚C) or boiling to 227˚F (108˚C). Also contains a compound that resists algae growth.

Swingarc™ Boom-Mounted Wire Feeders
Swingarc boom-mounted semiautomatic wire feeders bring an extra dimension of flexibility and efficiency to high-production wire welding stations. You get an effective solution that maximizes output, especially when dealing with large weldments and hard-to-reach areas. See Lit. Index No. M/13.0.

Typical Systems for 60 Series

Deltaweld 452

S-62

- **Deltaweld® 452 #903 394**
- **S-62 #131 785-02-44**

Dimension 452

D-64

- **Dimension™ 452 #903 255**
- **D-64 #131 788-03-35**

XMT 304

D-64

Optima 304

- **XMT® 304 #903 471**
- **D-64 #131 788-01-29**
- **Optima™ 304 #043 186**

Invision 456MP

S-64D

- **Invision™ 456MP #903 725**
- **S-64D #131 786-02-46**

Important note: Digital feeders require solid-state machine for optimum performance.

Recommended Power Sources

Deltaweld®	Lit. Index No. DC/16.2
Dimension	Lit. Index No. DC/19.2
XMT® 304	Lit. Index No. DC/18.8
Invision™ 354 MP	Lit. Index No. DC/23
Invision™ 456P	Lit. Index No. DC/20
Invision™ 456MP	Lit. Index No. DC/23
XMT 456	Lit. Index No. DC/18.8

Water Coolant Systems

Coolmate 3	**#043 007**	115 VAC
	#043 008	230 VAC
Coolmate V3	**#043 009**	115 VAC
Coolmate 4	**#042 288**	115 VAC
Coolant	**#043 810**	

Swingarc™ Mounting Equipment

See Lit. Index No. M/13.0

MIG Welding Guns

GW-500	See Lit. Index No. AY/18.0
M-25, M-40	See Lit. Index No. AY/15.0
Roughneck C-Series (300 – 600 A)	See Lit. Index No. AY/17.0

Ordering Information and System Checklist

Equipment and Options	Stock No.	Description	Qty.	Price
S-62 Single-wire, Two-drive-roll Models *(Order drive rolls and wire guides separately. See page 3.)*	**#131 785** **#131 785-01-39** **#131 785-02-39**	Basic Model ***New!*** w/Run-In Control w/CE and Euro Adapter		
S-64 Single-wire, Four-drive-roll Models *(Order drive rolls and wire guides separately. See page 3.)*	**#131 786** **#131 786-01-26** **#131 786-01-32** **#131 786-01-37** **#131 786-02-46** **#131 786-02-52** **#131 786-03-43** **#131 786-02-44** **#131 786-03-45**	Basic Model w/High-Speed Motor w/Digital Display and Voltage Control ***New!*** w/Run-In Control w/Digital Display and Digital Dual Schedule w/High-Speed Motor and Digital Display w/CE, High-Speed Motor and Euro Accessory Kit w/CE, and Euro Adapter w/CE, Digital Display and Euro Adapter		
D-64 Dual-wire, Four-drive-roll Models *(Order drive rolls and wire guides separately. See page 3.)*	**#131 788** **#131 788-01-29** **#131 788-01-30** **#131 788-01-36** **#131 788-03-35** **#131 788-03-42**	Basic Model w/Digital Display and Voltage Control w/High-Speed Motor (left side only) ***New!*** w/Run-In Control w/Digital Display and Digital Dual Schedule w/CE, Digital Display and Euro Adapter		
Digital Meters with Presettable WFS and Voltage Control	**#180 313** **#180 315**	Field. For S-60 model Field. For D-60 model		
Digital Voltage Control	**#134 382** **#138 549**	Field. For S-60 model Field. For D-60 model		
Digital Meters	**#172 734** **#172 735**	Field. For S-60 model Field. For D-60 model		
Digital Dual Schedule	**#173 751** **#172 826** **#173 749**	Field. For S-60 model Field. For right side of D-60 model Field. For left side of D-60 model		
Voltage Control (Non-Digital)	**#133 425** **#138 527**	Field. For S-60 model Field. For D-60 model		
4-in-1 Control	**#132 138** **#138 543**	Field. For S-60 model Field. For left or right side D-60 model		
New! Run-In Control	**#194 682** **#194 680**	Field. For S-60 model Field. For D-60 model		
Ground Sensor Control	**#160 963**			
Control Detachment Kit	**#134 936** **#134 937** **#134 935**	Field. 10 ft (3 m), for S-60 model Field. 25 ft (7.6 m), for S-60 model Field. 25 ft (7.6 m), for D-60 model		
Drive Roll Conversion Kit	**#132 128** **#172 104**	Field. For serial nos. before KE-756284 Field. For serial nos. after KE-756284		
Waterflow Shutdown Switch	**#180 390**			
Burnback Control	**#132 140** **#138 541**	Field. For S-60 model Field. For D-60 model, Left or right side		
Trigger Hold	**#189 893** **#189 894**	Field. For S-60 model Field. For D-60 model		
Accessories				
Carrying Cart	**#056 301**			
Feeder Cart	**#142 382**			
Turntable Assembly	**#146 236**			
Hanging Bail	**#058 435**	Electrically isolated		
Wire Straightener	**#141 580** **#141 581**	For .035 – .045 in (0.9 – 1.1 mm) diameter wire For 1/16 – 1/8 in (1.6 – 3.2 mm) diameter wire		
Spool Covers	**#057 607** **#090 389**	For S-60 and left side of D-60 model For right side of D-60 model		
Wire Reel Assembly	**#108 008**			
Reel Covers	**#058 256** **#091 668**	For S-60 and left side of D-60 model For right side of D-60 model		
Compression Spring	**#057 745**			
Spool Adapter	**#047 141**			
Process Selector Control	**#042 872**			
2/0 MIG Welding Accessory Kit	**#194 779** **#173 856** **#173 851**	10 ft (3.1 m) 25 ft (7.6 m) 50 ft (15.2 m)		
Polarity Reversing Isolation Control	**#042 871**	For D-60 model		
Extension Cords	**#122 973** **#122 974** **#122 975**	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (23 m)		
PSA-2 Control	**#141 604**			
PSA-2 Extension Cord	**#047 813**	25 ft (7.6 m). For use with PSA-2 control		
Dual Schedule Switches	**#079 693** **#071 833**	DSS-8 DSS-9		
Cord, Y-Adapter	**#157 364**			
Adapter, International Gun	**#164 902**			
Date:		**Total Quoted Price:**		

Distributed by:

Miller
The Power of Blue.

Litho in USA

60M Series

Single and Dual, Programmable, Constant-Speed Wire Feeders

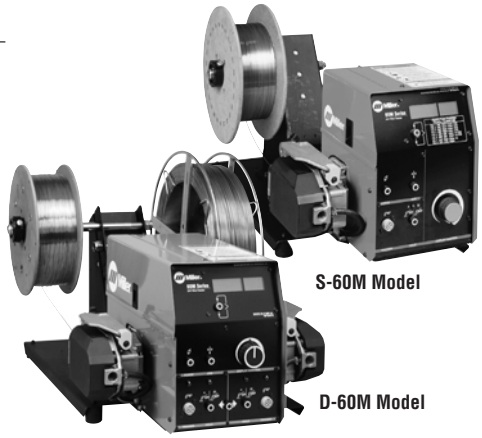
Index No. M/2.4
Issued Oct. 2000

Processes

MIG (GMAW) and Pulsed MIG (GMAW-P) Welding

Flux Cored (FCAW) Welding (Gas and Self-shielded)

TRUE BLUE® 3 YR. WARRANTY



S-60M Model

D-60M Model

The 60M Series of semiautomatic wire feeders offers the ultimate in versatility and performance. Designed for pulse MIG and semiautomatic welding, all 60M models are equipped with eight synergic pulse programs. The dual models can perform the same process on both sides, or one can be used for conventional MIG, and the other used for pulsed MIG welding.

Applications

- Metal fabrication
- Heavy manufacturing
- Construction
- Light manufacturing

Features	Benefits
New! **SharpArc™ Technology**	An arc control that offers a simple way to tailor factory weld programs to accommodate a variety of welding applications.
New! **Start/Crater Ramp**	Allows the output power to be tapered from start to weld and from weld to crater.
Microprocessor-based design	Flexible system with many standard features that can be customized for a variety of applications.
Digital control	Offers precise control and regulation of the welding arc not found in conventional systems.
User-friendly front panel	One simple and easy control for setting weld parameters.
Two back-lit liquid crystal displays	Easy-to-set and view all welding parameters and selectable features.
16 built-in synergic pulse programs	Quick and easy selection of the right pulse program based on your wire and gas. Eight programs each for the Invision 456P and XMT 304.
New! **Power source selectable**	No setup card required for the Invision 456P or XMT 304. 16 programs are stored in the software. Just select either power source and do a system reset.
Teach mode for pulse programs	Allows easy field modification of pulse programs to meet your specific application.
Full-featured, adjustable weld sequence control	You can select and adjust any parameter within the weld sequence — preflow, run-in, weld time, crater, burnback and postflow, as required.

☞ See page 2 for additional features and benefits.

Specifications *(Subject to change without notice.)*

Heavy Industrial CC/CV *(Use with CC/CV Power Sources.)*

Model	Input Power	Electrode Wire Diameter Capacity	Wire Speed	Peak Voltage Range*	Peak Current Range*	Background Current Range*	Pulses per Second*	Pulse Width*	Dimensions	Net Weight
S-60M (Single)	24 VAC 50/60 Hz	.023–1/8 in (0.6–3.2 mm)	50–780 IPM (1.3–19.8 m/min.)	0–99.9 V	100–600 A	0–200 A	20–400 PPS	1.0–5.0 Milliseconds	H: 14 in (356 mm) W: 14 in (356 mm) D: 26-1/2 in (673 mm)	58 lb (26 kg)
D-60M (Dual)									H: 14-3/4 in (375 mm) W: 18 in (457 mm) D: 32 in (813 mm)	82 lb (37 kg)

** Applies only when 60M feeders are used with the Invision® 456 and Phoenix™ 456 power sources.*

Ordering Information

☞ See back page.

Miller® The Power of Blue.

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

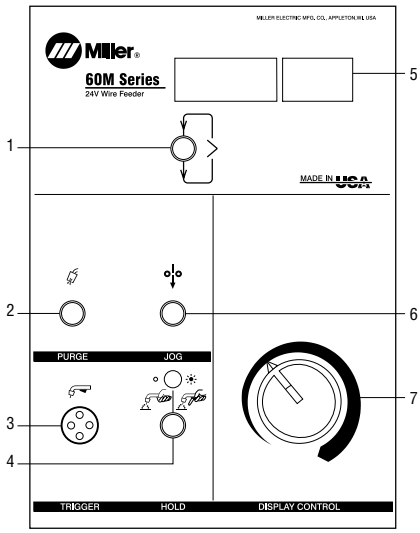
International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

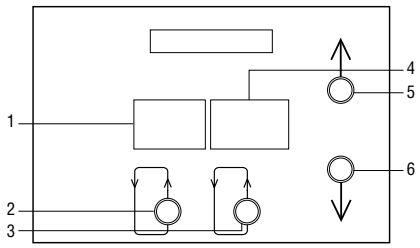
Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

Additional Features	Benefits
Programmable security system	Consistent results are possible by programming limits to the range of parameter adjustments. Eliminates inadvertent changes of preset parameters.
Dual schedule capabilities	Allows two separate welding conditions to be programmed for one wire.
Arc time totalizer and cycle counter	Handy feature for conducting job studies and maintenance schedules.
Electronic trigger hold control	Allows the operator to make long extended welds without holding gun trigger.
Gas purge and wire jog control	Purge gas line and feed wire without energizing system.
Quick-change drive rolls	Gear-driven drive rolls are easy to change. No tools required.
Rotatable wire drive assembly	Eliminates sharp bends in the gun cable, thus improving wire feed performance and extending the service life of the gun liner. (Bench models only.)
Sealed ball bearing, all-gear driven system	Smooth, positive and accurate wire feed offers long, uninterrupted service life.
Posifeed™ wire drive system	Four drive roll provides excellent feeding of welding wire.

Control Panels





60M Series Side Panel

1. Mode Displays.
2. Mode Select Button. Provides choice of four modes:
   - Process Mode. (Pulse, adaptive pulse, or MIG.) Also used to teach customized pulse programs.
   - Sequence Mode. Allows variety of sequences in weld program. (Refer to Sequence Chart.)
   - Dual Schedule Mode. Links two weld programs when two different welding conditions are required for one wire.
   - Card Mode. Writes programs to optional Data Card or reads programs from the Data Card.
3. Parameter Select Button. Selects parameter to be changed.
4. Parameter Display
5. Parameter Increase Button
6. Parameter Decrease Button

60M Series Front Panel

1. Parameter Select. Controls the selection of voltage or arc length, wire feed speed, program number, and also SharpArc™.
2. Purge Button. Purges gas line and gun without energizing feeder.
3. Gun Trigger Receptacle. Prewired for single- and dual-schedule operation. Receptacle will accommodate a variety of dual schedule switches.
4. Trigger Hold Button and Light. System remains energized when operator releases gun trigger—ideal when making extended welds.
5. Digital Display
6. Jog Button. Feeds wire without energizing the power source contactor and gas valve. (Independent control)
7. Display Control. Single-knob control for setting all adjustable, displayed parameters.

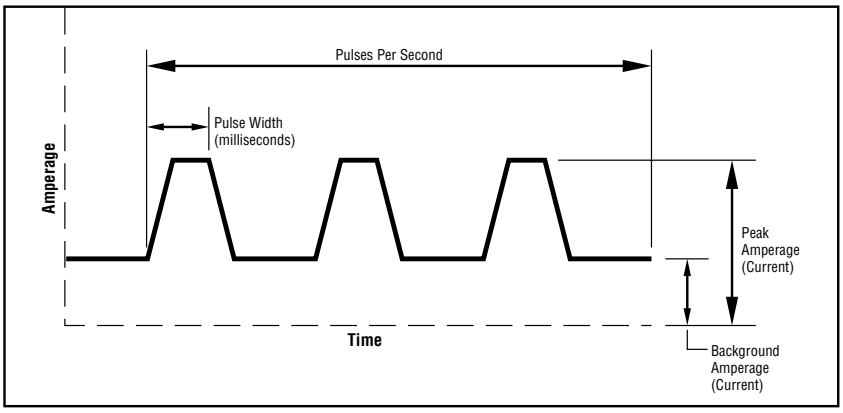
Sequence Chart

Sequence	Time	Wire Feed Speed	Voltage or Trim
Preflow	0–9.9 sec.	not active during preflow	not active during preflow
Run-in	not active during run-in	adjustable	not active during run-in
Start	0–2.5 sec.	adjustable	adjustable
Weld*	0–25 sec.	adjustable	adjustable
Crater	0–2.5 sec.	adjustable	adjustable
Burnback	0–0.25 sec.	not active during burnback	adjustable (voltage only)
Postflow	0–9.9 sec.	not active during postflow	not active during postflow

**Inductance is adjustable in the MIG process mode only when using the Invision or Phoenix 456 power source.*

Description of Pulsed MIG Welding Process

When pulsed MIG welding, the power source rapidly switches the output from high peak current to low background current in precisely regulated intervals. The peak current pinches off a spray-transfer droplet while the low background current "cools" the arc with little or no metal transfer. With proper adjustment of the pulse parameters, the pulsed MIG welding process can produce high-quality welds when using a broad range of material types, thicknesses, and joint configurations. Requires use of a Miller inverter power source.



Pulsed MIG Wave Form

Advantages of Pulsed MIG Process over MIG Spray Transfer and Short Arc Welding

- Can use larger, more economical wire diameters
- Reduces or eliminates spatter
- Lower heat input; therefore, reduced distortion
- Better out-of-position puddle control
- Optimum bead shape and penetration
- Potential reduction in fume particulate emission

*Note: For additional pulsed MIG information, order Miller Electric's GMAW-P Pulsed Spray Transfer Process Guide **(#168 336)**.*

*A 4-volume video training package **(#175 773)** is also available.*

- *What is Pulsed MIG Welding?*
- *Pulsed MIG Process Variables*
- *Pulsed MIG Equipment and Set-Up*
- *Pulsed MIG Operator Techniques*

*Includes Pulsed Spray Transfer Process Guide **(#168 336)***

60M Design Features

- Can be used with a variety of Miller power sources :

  For pulsed MIG/conventional MIG welding use the 60M with the Invision™456, Phoenix™ 456 CC/CV, or the XMT®304 CC/CV inverter power source.

  For conventional MIG welding only, the 60M can also be used with the Deltaweld® or Dimension™ Series power source.

Programming Features

- Eight Synergic Pulsed MIG Programs factory-set for use with the XMT®304 welding power source:

  Mild steel wire with Argon/CO_2 shielding gas
  (1) .030 in (0.8 mm)
  (2) .035 in (0.9 mm)
  (3) .045 in (1.1 mm)

  Stainless steel wire with Argon/Helium/CO_2 shielding gas
  (4) .030 in (0.8 mm)
  (5) .035 in (0.9 mm)
  (6) .045 in (1.2 mm)

  Nickel alloy wire with Argon/Helium shielding gas
  (7) .035 in (0.9 mm)

  Metal core wire with Argon/CO_2 shielding gas
  (8) .045 in (1.2 mm)

- Eight Synergic Pulsed MIG Programs factory-set for use with the Invision™456 welding power source:

  Mild steel wire with Argon/CO_2 shielding gas
  (1) .035 in (0.9 mm)
  (2) .045 in (1.2 mm)
  (3) .052 in (1.3 mm)
  (4) .062 in (1.6 mm)

  Stainless steel wire with Argon/Helium/CO_2 shielding gas
  (5) .035 in (0.9 mm)
  (6) .045 in (1.2 mm)

  Metal core wire with Argon/CO_2 shielding gas
  (7) .045 in (1.2 mm)
  (8) .052 in (1.3 mm)

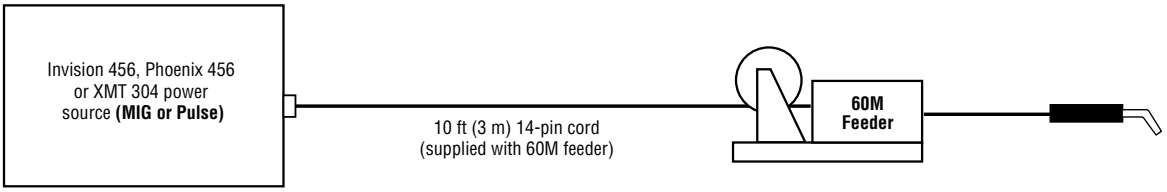
- On-Board Programming and Diagnostics:
  - All factory-set synergic pulse programs can be modified to meet specific welding applications
  - Feeder can be manually programmed for the voltage and/or amperage range of the power source being used
  - Automatic shutdown if arc voltage is not detected when gun trigger is depressed
  - Automatic shutdown if no wire feed speed is present when the gun trigger is pressed
  - Drops out contactor and gas valve if arc is not sensed after 3 seconds

- Selectable Operating Features:
  - Feeder will compensate for variations in tip-to-work distance and provide a constant arc length (in Adaptive Pulse mode)
  - Arc voltage can be regulated at the power source output studs or at the welding gun
  - Gun trigger can be used to make program selection
  - Arc time counter accumulates and displays actual arc time (up to 9,999.99 hours) and weld cycles (up to 999,999 cycles). Counter can be reset to 0 (zero) as required. Ideal for job time studies, shift output, maintenance, etc.

- Security Capabilities:
  - Feeder can be programmed to limit the range of parameter control, the number of programs available, and the selectable parameters that are available to the operator
  - A three-digit code can be programmed to restrict unauthorized access to the set-up screen

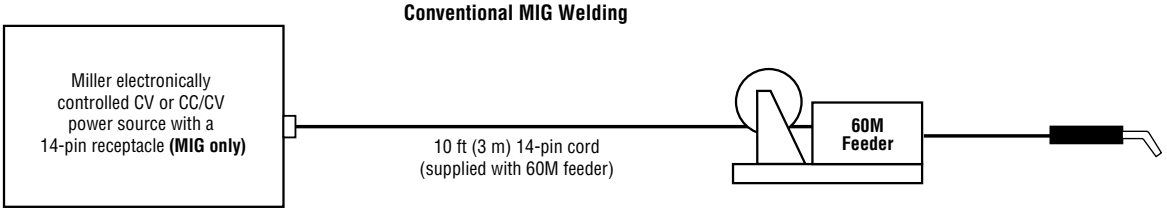
Typical Installations

Pulsed MIG or Conventional MIG Welding



*Note: To connect the 60M feeder to an existing Maxtron™ 450 power source use adapter cord **#043 661**.*

Conventional MIG Welding



Four Roll Drive Roll Kits *(Order from Miller Service Parts.)*

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include necessary guides and feature an anti-wear sleeve for the inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.035 in (0.9 mm)	**#151 026**	**#151 036**	**#151 052**	—
.040 in (1.0 mm)	**#161 190**	—	—	—
.045 in (1.1/1.2 mm)	**#151 027**	**#151 037**	**#151 053**	**#151 070**
.052 in (1.3/1.4 mm)	**#151 028**	**#151 038**	**#151 054**	**#151 071**
1/16 in (1.6 mm)	**#151 029**	**#151 039**	**#151 055**	**#151 072**
.068/.072 in (1.8 mm)	—	—	**#151 056**	—
5/64 in (2.0 mm)	—	**#151 040**	**#151 057**	**#151 073**
3/32 in (2.4 mm)	—	**#151 041**	**#151 058**	**#151 074**
7/64 in (2.8 mm)	—	**#151 042**	**#151 059**	**#151 075**
1/8 in (3.2 mm)	—	**#151 043**	**#151 060**	**#151 076**

Nylon Wire Guides for Feeding Aluminum Wire

(Order from Miller Service Parts.)

Wire Size	Inlet Guide	Intermediate Guide
.047 in (1.2 mm)	**#151 203**	**#151 204**
1/16 in (1.6 mm)	**#151 205**	**#151 206**
3/32 in (2.4 mm)	**#151 207**	**#151 208**

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023 – .040 in (0.6 – 1.0 mm)	**#150 993**	**#149 518**
.045 – .052 in (1.1 – 1.4 mm)	**#150 994**	**#149 519**
1/16 – 5/64 in (1.6 – 2 mm)	**#150 995**	**#149 520**
3/32 – 7/64 in (2.4 – 2.8 mm)	**#150 996**	**#149 521**
1/8 in (3.2 mm)	**#150 997**	**#149 522**

Options

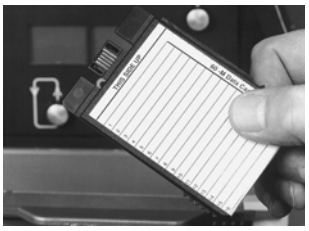
Skill Level Index
The bracketed entry to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:
[B: 30] Skill Level: B, Time: 30 minutes

Cord, Y-Adapter 24V #043 387
Connects an old feeder to a new power source.

Weld Current Sensor #160 963 [A: 05]
This option is required when using M feeders with older style Miller CV power sources: Deltaweld® prior to serial no. KG141349 and Dimension™ prior to serial no. KC 253517.



Blank Data Card #155 910
Stores up to 32 complete weld programs. Ideal for saving custom programs and transferring programs to other 60M feeders.

Digital Gas Flow Meter #186 313 [B: 15]
Allows gas flow rate (CFH) to be accurately set on the 60M front panel digital display. A programming feature in the 60M control allows a selectable gas range to be set and if for any reason the gas flow deviates from the set range the system will shut down and display a "GAS FLOW ERROR" on the 60M front panel display. This can be an excellent gas saver and will also alert to a low gas supply.

New! **SharpArc™ Upgrade Kit #191 996 [A: 15]**
This kit allows 60M feeders manufactured prior to serial no. KJ218744 to be upgraded to include the SharpArc feature.

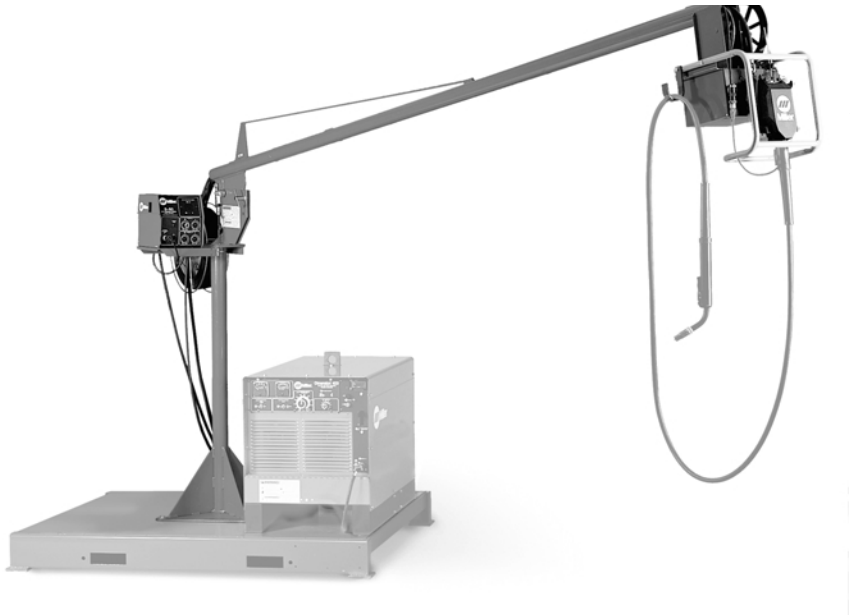
Automation Upgrade Module #172 886 [B: 15]
This module consists of an I/O board and software upgrade that enables the 60M control to better communicate with other peripheral equipment and improves performance in an automatic welding cell.

Features: two programmable outputs, remote start/stop, remote program select, arc voltage monitor, arc error monitor and wire stick check.

Water Flow Shutdown Switch #180 390 [A: 15]
For use with the water hose kits. Protects water-cooled gun from overheating by shutting down system if water does not flow.

If required on both sides of a dual model, two water flow shutdown switches must be ordered.

Swingarc™ Boom-Mounted Wire Feeders
Swingarc boom-mounted semiautomatic wire feeders bring an extra dimension of flexibility and efficiency to high-production wire welding stations. You get an effective solution that maximizes output, especially when dealing with large weldments and hard-to-reach areas. See Lit. Index No. M/13.0.



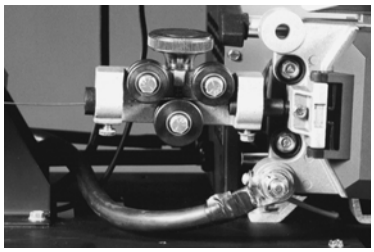
Accessories

Control Detachment Kit

For S-60M model
#134 936 Field 10 ft (3 m) **[B: 55]**
#134 937 Field 25 ft (7.6 m) **[B: 55]**

For D-60M model
#134 935 Field 25 ft (7.6 m) **[B: 55]**

For 60M bench models only. Separates the feeder control module from the wire drive assembly and base. Ideal when using Automation Upgrade Module.



Wire Straightener

For .035–.045 in (0.9–1.1 mm) wire
#141 580 **[A: 05]**

For 1/16–1/8 in (1.6–3.2 mm) wire
#141 581 **[A: 05]**

Reduces cast in wire. Improves wire feeding performance and increases life of gun liner and contact tip.

Dual Schedule Switches

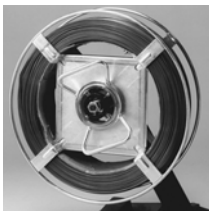
For use with dual schedule control. Dual schedule switches require adapter cord **#157 364**.

DSS-8 #079 693 **[A: 05]**
A 15 ft two-position trigger switch that easily attaches to the welding gun. Use in place of the standard trigger for dual scheduling.

DSS-9M #041 793 **[A: 05]**
A 15 ft, two-position slide switch that attaches to the welding gun. Selects welding condition when utilizing the dual schedule feature. Gun trigger operates as standard trigger.

DSS-10 Remote Increase/Decrease Switch
#042 749 **[A: 05]**
A 15 ft, two-position, momentary contact switch that attaches to the welding gun. Use with the Remote Parameter Increase/Decrease feature to fine tune parameters at the welding gun while welding. Gun trigger operates as standard trigger.

Adapter Cord #157 364
A 1 ft, Y trigger cable that connects DSS switch and control box to the gun. Required for use with dual schedule switches.



Wire Reel Assembly #108 008
Accommodates 60 lb (27 kg) coil of wire.

Reel Covers

For S-60M and left side of D-60M model
#058 256

For right side of D-60M model
#091 668

Accommodates 60 lb (27 kg) coil of wire. Protects wire from contaminants.

Spool Covers

For S-60M and left side of D-60M model
#057 607 **[A: 05]**

For right side of D-60M model
#090 389 **[A: 05]**

Fits a 12 in (304 mm) spool of wire.

Guns

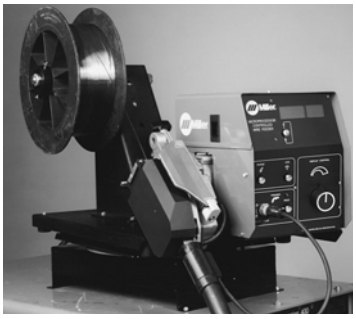
M-40 Guns
See Lit. Index No. M/10.0.

Accessories

Carrying Cart #056 301 [A: 30]
Carries wire feeder and miscellaneous welding supplies. Height: 34 in (863 mm). Lower tray height: 9 in (228 mm). Shipped disassembled.

Feeder Cart #142 382 [A: 20]
Low-profile, creeper cart. Shipped disassembled.

Hanging Bail #058 435 [A: 15]
Electrically isolated. Suspends feeder over work area.



Turntable Assembly #146 236 [B: 20]
Allows feeder to rotate as operator changes work position. Reduces strain and bending of gun cable.

14-Pin Extension Cords
#043 690 25 ft (7.6 m)
#043 691 50 ft (15 m)
For optimum performance, do not extend 60M feeder more than 60 ft (18 m) from power source.

Water Coolant Systems

For more information, see Miller Coolant Systems Lit. Index No. AY/7.2.

Coolmate 3
#043 007 115 VAC
#043 008 230 VAC
For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate V3 #043 009 115 VAC
For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

Coolmate 4 #042 288
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolant #043 810
Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37˚F (-38˚C) or boiling to 227˚F (108˚C). Also contains a compound that resists algae growth.

Water Hose Kit
#096 746 10 ft (3 m) [A: 10]
For 60M bench models only. Use with Miller coolant systems and water-cooled welding guns. Can be used with or without optional water flow safety switch.

If water kit is to be used on both sides of a dual wire feeder, a kit must be ordered for each side of the feeder.

Recommended Power Sources

MIG or Pulsed MIG

Invision® 456P	Lit. Index. No. DC/20
XMT®304 CC/CV	Lit. Index No. DC/18.8
Phoenix™456	Lit. Index. No. DC/21

MIG only

Deltaweld®	Lit. Index No. DC/16.2
Dimension™	Lit. Index No. DC/19.2

Ordering Information and System Checklist

Equipment and Options	Stock No.	Description	Qty.	Price
60M Wire Feeder *Note: Drive rolls must be ordered separately.*	**#131 794*** **#131 794-01-3** **#131 796*** **#131 796-02-1** **#131 794-02-2** **#131 794-03-2**	S-64M, single S-64M, single, with high speed motor D-64M, dual D-64M, dual, with high speed motor (both sides) S-64M, with CE, Europe S-64M, with CE, Euro-French		
Drive Roll Kit		See table on page 4		
Wire Guides		See table on page 4		
Weld Current Sensor	**#160 963**	For use with older-style Miller power sources		
Blank Data Card	**#155 910**	Store up to 32 programs		
E-Prom /French Field Option	**#198 564**			
Digital Gas Flow Meter	**#186 313**			
SharpArc Upgrade Kit	**#191 996**	For 60M feeders prior to serial No. KJ218744		
Automation Upgrade Module	**#172 886**			
Water Flow Shutdown Switch	**#180 390**	Use with water hose kit **#096 746**		
Swingarc Boom-Mounted Feeders		See Lit. Index No. M/13.0		
Accessories				
Control Detachment Kit	**#134 936** **#134 937** **#134 935**	Field. For S-60M, 10 ft Field. For S-60M, 25 ft Field. For D-60M, 25 ft		
Wire Straightener	**#141 580** **#141 581**	.035–.045 in wire 1/16–1/8 in wire		
DSS-8	**#079 693**	Dual schedule switch		
DSS-9M	**#041 793**	Dual schedule switch		
DSS-10	**#042 749**	Remote increase/decrease switch		
Adapter Cord	**#157 364**	1 ft (0.3 m). For use with Dual Schedule Switches		
PSA-2 Control	**#141 604**			
Wire Reel Assembly	**#108 008**			
Reel Covers	**#058 256** **#091 668**	For S-60M and left side of D-60M For right side of D-60M		
Spool Covers	**#057 607** **#090 389**	For S-60M and left side of D-60M For right side of D-60M		
M-40 Welding Guns		See Lit. Index No. M/10.0		
Carrying Cart	**#056 301**			
Feeder Cart	**#142 382**			
Hanging Bail	**#058 435**			
Turntable Assembly	**#146 236**			
Adjustable Spool Carrier	**#096 075**			
14-Pin Extension Cords	**#043 690** **#043 691**	25 ft (7.6 m) 50 ft (15.2 m)		
Coolmate™ 3	**#043 007** **#043 008**	115 VAC 230 VAC		
Coolmate™ V3	**#043 009**			
Coolmate™ 4	**#042 288**	115 VAC		
Coolant	**#043 810**			
Water Hose Kit	**#096 746**			
Swingarc™ Mounting Equipment		See Lit. Index No. M/13.0		
Miscellaneous				
Primary Power Cable				
International-Style Connector	**#138 181**	For 4/0 weld cable. *Two required when pulsing using Miller inverter power sources*		
Ground Cable with Work Clamp				
Gas Supply				
Regulator/Flowmeter				
Welding Wire				
Spare Consumables				
Helmet/Welding Gloves				
Date:		**Total Quoted Price:**		

* CSA NRTL/C® *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

Distributed by:

Miller® *The Power of Blue.*

Litho in USA

Index No. M/8.0
Issued February 1999

R-115

115 Volt, Replacement Feeder

Shown with optional carrying handle

TRUE BLUE® 3 YR. WARRANTY

ISO 9001 REGISTERED QUALITY SYSTEM

The R-115 constant speed semi-automatic wire feeder utilizes 115 VAC input power. The R-115 offers easy connection to older Miller and competitive welding power sources supplying 115 VAC power.

Feeders are not shipped with an interconnecting cord. An optional cord is required (see page 2) or an existing interconnecting cord can be used.

The R-115 will work on the following power sources:
- Older Style Miller w/hubble connectors
- Hobart
- Lincoln
- Thermal Arc
- Airco
- L-Tech

. . . and other power sources supplying 115V (see optional cords).

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding (Gas and Self-shielded)

Description

CV Use with CV Power Sources

Features	Benefits
Universal 115V feeder power	Adapts to a wide variety of older Miller and competitive power sources.
Industrial 4 drive roll system	Offers exceptional feed performance and reliability.
Optional interconnecting cords	Quick and easy installation to a variety of power sources. (Refer to page 2 for power source control cord and drive roll kits.)
Convienent terminal block	Easily adapts to existing feeder innerconnecting cords.
Heavy duty industrial design	16 gauge sheet metal enclosure for durability in harsh environments.
Motor ramp and burnback control	Aids in starting and stopping performance to match power source characteristics.
Trigger hold	Allows operator to make long extended welds without having to hold gun trigger.
Wire feed speed range is 75-750 IPM	Covers a wide variety of wire sizes (.030-3/32).
Gas solenoid	Accommodates self-shielded and gas-shielded wires.
Quick change drive rolls	Four gear driven rolls are easy to change – no tools required.
Optional run-In control	A separate wire feed speed adjustment to control wire speed prior to arc initiation.
Miller True Blue® Warranty	Wire feeder is warranted for 3 years - parts and labor.

Specifications *(Subject to change without notice.)*

Industrial CV (Use with CV Power Sources.)

Input Power	Electrode Wire Diameter Capacity	Wire Speed	Dimensions	Net Weight
115 VAC, 2 A, 50/60 Hz	.030–3/32 in (0.8–2.4 mm)	75–750 IPM (1.9–19 m/min)	L: 23-1/2 in (597 mm) W: 10-3/4 in (273 mm) H: 11 in (279 mm)	40 lb (18 kg)

SP® NRTL/C *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

Ordering Information

#193 164 R-115 Wire Feeder
Note: Refer to page 2 for power source control cord and drive roll kits **(must be ordered separately)**.

#193 164-01-1 R-115 Wire Feeder
Includes run-in control.

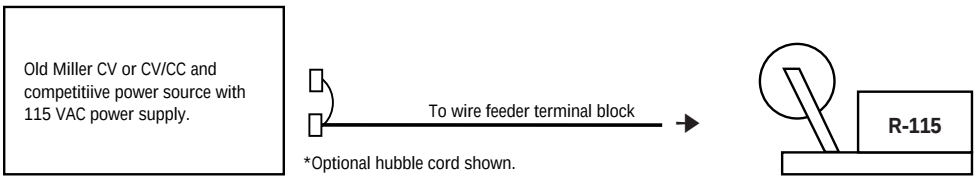
Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters–USA
USA Phone: 920-735-4505 (Auto-Attended)
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site–www.MillerWelds.com

Miller® *The Power of Blue.*

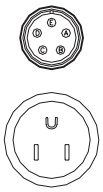
Typical Installations


Old Miller CV or CV/CC and competitiive power source with 115 VAC power supply.
To wire feeder terminal block
*Optional hubble cord shown.
R-115

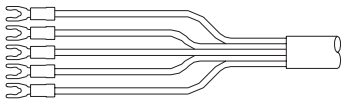
Feeder to Power Source Control Cords – All cords are 10 ft (3 m) in length.

Select control cord from list below for the type of power source being used.
Cords shown reflect connection at the power source.

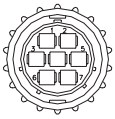
#193 387
Old style Miller and Airco power source with two and three prong (Hubbell style) twistlock connectors.



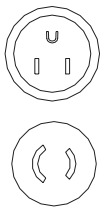
#193 383
Hobart power source with 115 volt wall type plug and 5-pin plug.



#193 385
Lincoln power source with five wire terminal strip connection.



#193 379
L-tec power source with 7-pin connector.



#193 386
Airco power source with straight blade 115 volt wall type plug and two prong twistlock.

#193 381
Hobart power source with 19-pin plug.

#193 384
Lincoln power source with 14-pin connector.

#193 382
L-tec power source with 19-pin connector.

Drive Roll Kits *Select drive roll kits from chart below according to type and wire size being used. Kit includes drive rolls and inlet guide.*

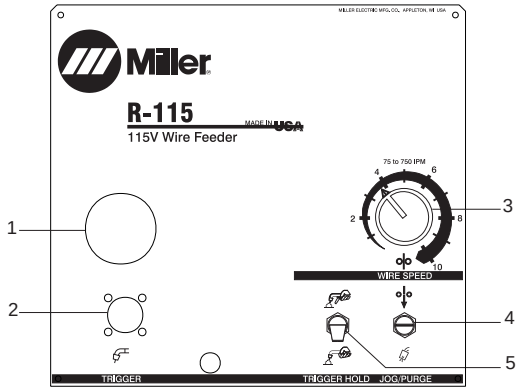
Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.030 in (0.8 mm)	**#046 780**	—	—	—
.035 in (0.9 mm)	**#046 781**	**#044 750**	**#046 792**	—
.040 in (1.0 mm)	**#161 190**	—	—	—
.045 in (1.1/1.2 mm)	**#046 782**	**#046 785**	**#046 793**	**#083 319**
.052 in (1.3/1.4 mm)	**#046 783**	**#046 786**	**#046 794**	**#083 320**
1/16 in (1.6 mm)	**#046 784**	**#046 787**	**#046 795**	**#046 800**
.068/.072 in (1.8 mm)	—	—	**#089 985**	—
5/64 in (2.0 mm)	—	**#046 788**	**#046 796**	**#046 801**
3/32 in. (2.4 mm)	—	**#046 789***	**#046 797***	**#046 802***

***** 194 264 - 3/32 inlet guide is required when using 3/32 drive rolls.

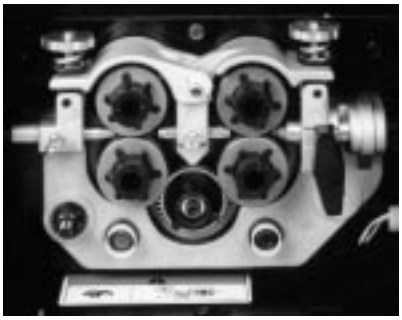
Control Panel

1. Gun Connection
2. Trigger Receptacle
3. Wire Speed Control
4. Jog/Purge
5. Trigger Hold

Power On/Off (on rear panel)



Wire Drive Assembly



Options and Accessories

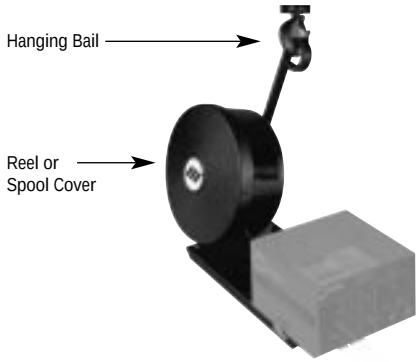
Skill Level Index
The bracketed entry to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:

[B: 30] Skill Level: B, Time: 30 minutes

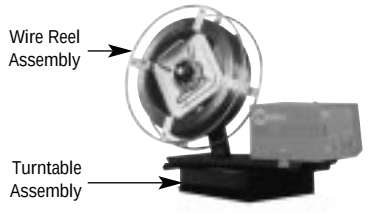
Run-In Control
#193 391 Field **[A: 25]**
A separate wire feed speed adjustment to control wire speed prior to arc initiation. This control may be beneficial to aid arc starting with certain types of power sources.



Hanging Bail #058 435 [A: 05]
Suspends feeder over the work area.

Reel Cover #058 256 [A: 05]
For 60 lb (27.2 kg) coil

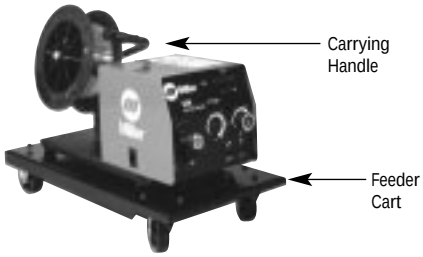
Spool Cover #057 607 [A: 05]
For 12 in (304 mm) spool



Wire Reel Assembly #108 008 [A: 05]
For 60 lb (27.2 kg) coil of wire.

Turntable Assembly #146 236 [B: 20]
Allows rotation of feeder as operator changes work positions. This reduces strain and bending on gun cable.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.



Carrying Handle #193 762 [A: 05]
For lifting and moving feeder.

Feeder Cart #043 698 Field only **[A: 25]**
A low-profile creeper cart with high-quality rubber casters, front swivel and rear rigid.

Distributed by:

Litho in USA

S-22P12 and Super S-32P

Lightweight, Portable Wire Feeders

Index No. M/6.3
Issued Dec. 1999

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding (Gas and Self-shielded)

TRUE BLUE® 3 YR. WARRANTY

Lightweight and portable, these feeders are also durable, enclosed in steel-reinforced, impact-resistant and flame-retardant molded plastic cases.

They handle a wide variety of wire sizes and types, and include professional features for tough portable welding jobs.

Select either the Super S-32P for CC or CV-type voltage-sensing welding, or the S-22P12, for CV-type constant-speed welding with low-voltage 24 VAC operation. Their rugged portability makes these feeders great choices for all environments.

Applications

- Shipbuilding
- Construction
- Pipe welding
- Field maintenance and repair
- In-plant maintenance
- Outdoor equipment repair

Features	Benefits
For Both Wire Feeders	
Impact-resistant, flame-retardant case	Provides strength in a portable, lightweight package. Impact resistant case protects internal components from damage.
Totally enclosed	Protects components and welding wire from moisture, dust and other contaminants.
Non-conductive case	Eliminates high voltage lines and the potential of welding current shorting to the workpiece.
Quick-change drive rolls	Two gear-driven drive rolls are easy to change — no tools required.
Gas purge	Purges gas line without feeding wire.
Wire jog control	Feeds welding wire without energizing contactor.
Insulated gun-holding bracket	Convenient place for holding gun when not welding or when transporting the feeder.
Overload protection	Protects motor and control circuit against possible damage due to overloading conditions.
Solid-state speed control and brake circuit	Excellent speed control and regulation. Eliminates the need for electrical/mechanical relays. Increases service life.
Lightweight, suitcase-type feeder	Allows improved mobility and ease of carrying to remote welding sites.
Industrial, high-torque, 24 VDC drive motor	Excellent positive and accurate wire feeding performance.
S-22P12 Only	
Low voltage control — operates off 24 VAC remote control	Eliminates need for internal grounding of the feeder. Reduces the number of conductors required in the control cord from the power source to the feeder. Use with Miller CV power sources having a 14-pin receptacle and 24 VAC supply.
Super S-32P Only	
Operates on open-circuit and arc voltages	Only requires the secondary weld cable to power feeder. No control cord required.
Voltage-sensing control circuit with CC/CV switch	Allows the feeder to be used with most constant-current and constant-voltage DC power sources.

S-22P12 Specifications *(Subject to change without notice.)*

Industrial CV *(Use with CV Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
24 VAC, 3.5 A, 50/60 Hz	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	75–630 IPM (1.9–16 m/min)	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	29 lb (13.1 kg)

Super S-32P Specifications *(Subject to change without notice.)*

Heavy Industrial CC/CV DC *(Use with CC/CV, DC Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
Operates on open-circuit voltage and arc voltage 15 to 100 V	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	50–700 IPM (1.3–17.8 m/min) Actual range in CC mode is dependent on arc voltage applied.	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	32 lb (15 kg)

CSA NRTL/C® *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

When using an 8 in (203 mm) diameter spool of welding wire, compression spring **#057 745 is required.*

Ordering Information

☞ See back page.

Miller® The Power of Blue.

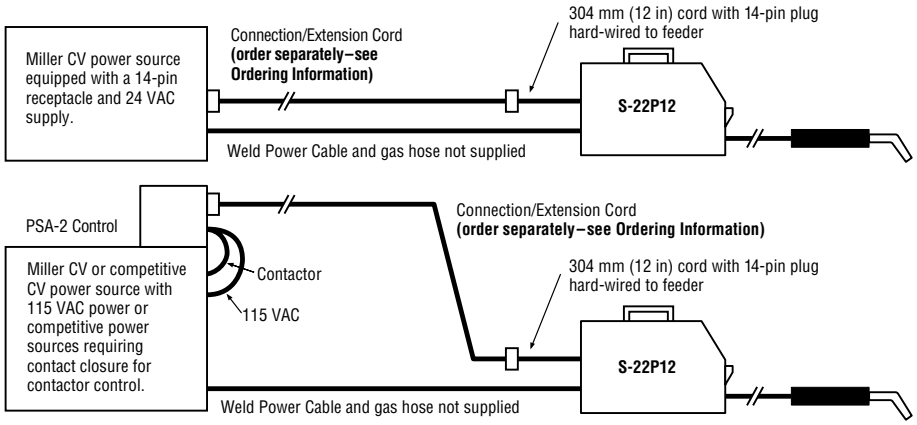
Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

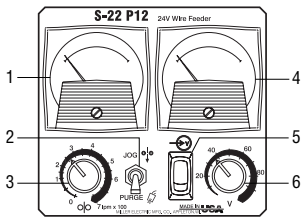
ISO 9001 REGISTERED QUALITY SYSTEM

S-22P12 Typical Installations


Miller CV power source equipped with a 14-pin receptacle and 24 VAC supply.
Connection/Extension Cord
(order separately–see Ordering Information)
304 mm (12 in) cord with 14-pin plug hard-wired to feeder
S-22P12
Weld Power Cable and gas hose not supplied
PSA-2 Control
Miller CV or competitive CV power source with 115 VAC power or competitive power sources requiring contact closure for contactor control.
Contactor
115 VAC
Connection/Extension Cord
(order separately–see Ordering Information)
304 mm (12 in) cord with 14-pin plug hard-wired to feeder
S-22P12
Weld Power Cable and gas hose not supplied

Note: If using the S-22P12 Ultra-Lite feeder with a power source having only 115 VAC supply, the PSA-2 (power supply adapter) is required. Refer to Optional Controls and Accessories section.

S-22P12 Control Panel

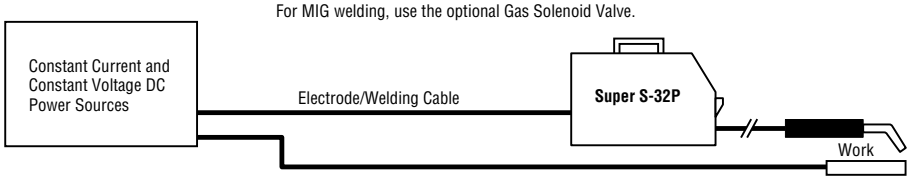


1. Wire Speed Meter*
2. Jog/Purge Switch
3. Wire Speed Control
4. Voltage Meter*
5. Power Control Switch
6. Remote Voltage Control*

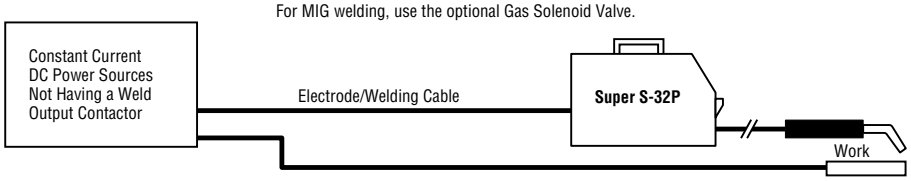
**Optional*

Super S-32P Typical Installations

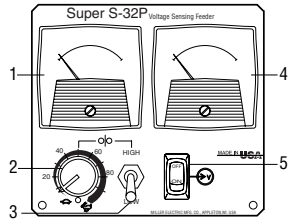
BASIC SET-UP — HOT WIRE
For MIG welding, use the optional Gas Solenoid Valve.

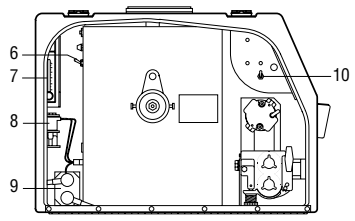


OPTIONAL SECONDARY CONTACTOR — COLD WIRE
For MIG welding, use the optional Gas Solenoid Valve.



Super S-32P Control Panel





1. Wire Speed Meter*
2. Wire Speed Control
3. Wire Speed Range Switch
4. Voltage Meter*
5. Power Control Switch
6. CC/CV Switch
7. Flowmeter*
8. Gas Solenoid*
9. Secondary Contactor*
10. Purge Switch*

**Optional*

Nylon Wire Guides for Feeding Aluminum Wire *(Order from Miller Service Parts.)*

Wire Size	Inlet Guide
.047 in (1.2 mm) 1/16 in (1.6 mm)	**#151 203** **#151 205**

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Drive Roll Kits *(Order from Miller Service Parts.)*

Select drive roll kits from chart below according to type and wire size being used. Kit includes drive rolls and inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023 / .025 in (0.6 mm)	**#087 131**	—	—	—
.030 in (0.8 mm)	**#079 594**	—	—	—
.035 in (0.9 mm)	**#079 595**	**#044 749**	**#079 606**	—
.040 in (1.0 mm)	**#161 189**	—	—	—
.045 in (1.1/1.2 mm)	**#079 596**	**#079 599**	**#079 607**	**#083 318**
.052 in (1.3/1.4 mm)	**#079 597**	**#079 600**	**#079 608**	**#083 317**
1/16 in (1.6 mm)	**#079 598**	**#079 601**	**#079 609**	**#079 614**
.068/.072 in (1.8 mm)	—	—	**#089 984**	—
5/64 in (2.0 mm)	—	**#079 602**	**#079 610**	**#079 615**

Skill Level Index
The bracketed entry to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:
[B: 30] Skill Level: B, Time: 30 minutes

S-22P12 Options

Remote Voltage Control
#121 569 Field **[A: 10]**
Installs in front panel of feeder to allow remote voltage control of most Miller electronically controlled CV or CC/CV power sources having a 14-pin receptacle.

Notes: The standard Connection/Extension Cord listed under ordering information is also designed for use with the Remote Voltage Control.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

Spot/Burnback Control #121 562 [B: 20]
Installs inside feeder. Provides up to 5 seconds of spot weld time in two ranges. Time starts with depression of gun trigger switch. Burnback control up to 0.25 seconds. Can be used in the spot or continuous mode.

Note: Cannot be installed if Pre-Flow/Post-Flow Control is used.

Preflow/Postflow Gas Control #121 563 [B: 20]
Installs inside feeder. An adjustable timer (0.25 to 5 seconds) for controlling gas flow prior to arc initiation and after completion of weld.

Note: Cannot be installed if Spot Control is used.

Meter Kit – Voltage/Wire Feed Speed
#121 568 Field **[B: 25]**
Analog DC voltmeter and wire feed speed meter. The design of the meter and the S-22P12 circuit allow the wire feed speed to be pre-set. The voltage is displayed only while welding.

Gas Flowmeter
#161 812 Field **[A: 15]**
Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

S-22P12 Accessories

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15 m)
#122 975 75 ft (23 m)
These cords are used as interconnecting cords (between the feeder and the power source) and extension cords. For example, two 25 ft (7.6 m) cords can be used together to make a 50 ft (15 m) cord.

MIG Accessory Kit #173 856
25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable, and ground cable with clamp.

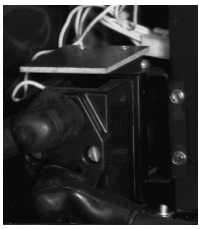
PSA-2 Control
#141 604 [A: 10]
Required when using the S-22P12 with power sources having only 115 VAC available. Mounts at power source and includes a 10 ft (3 m) 115 VAC cord and contactor cord with Hubbell connectors. A simple modification in the PSA-2 control also allows it to be used with competitive constant-voltage power sources requiring a contact closure for contactor control. The PSA-2 includes a 14-pin receptacle for direct connection of the standard interconnecting cord and optional extension cords. Bracket included for side mounting to the power source.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

GW-500 Gun
Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Super S-32P Options



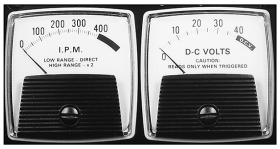
Secondary Contactor
#156 464 Field **[A: 15]**
Conveniently installs inside the feeder, allowing the welding wire to be electrically cold until the operator is ready to weld. Operates with straight or reverse polarity and features magnetic blow-outs to help preserve and extend service life of the contactor.

Contactor Rating:
400 amps at 30% duty cycle
330 amps at 60% duty cycle
250 amps at 100% duty cycle

Note: Can be ordered factory installed in option package.

Gas Solenoid Valve #161 810 Field **[A: 10]**
Required when using gas-shielded type wires. Includes purge control.

Note: Can be ordered factory installed in option package.



Meter Kit – Voltage/Wire Feed Speed
#161 242 Field **[B: 25]**
DC voltmeter and wire feed speed meter.

Note: Can be ordered factory installed in option package.

Gas Flowmeter
#161 812 Field **[A: 15]**
Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

Super S-32P Accessories

GA-40GL Gun
For self-shielded applications. Refer to gun Lit. Index No. M/9.0.

M-25 and M-40 Guns
For gas-shielded applications. Refer to gun Lit. Index No. M/10.0.

GW-500 Gun
Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Recommended Power Sources

For S-22P12

Regency® 250	Lit. Index No. DC/12.6
XMT® 304 CC/CV	Lit. Index No. DC/18.8
Shopmaster™	Lit. Index No. AD/2.3
CP-252TS	Lit. Index No. DC/13.0
CP-302	Lit. Index No. DC/13.0
Deltaweld® 302	Lit. Index No. DC/16.2
Trailblazer® 251 DT	Lit. Index No. ED/4.5
Trailblazer® 300D NT	Lit. Index No. ED/4.6

For Super S-32P

Dimension™	Lit. Index No. DC/19.2
Gold Star®	Lit. Index No. DC/8.1
Mark VI®	Lit. Index No. DC/9.8
Mark VIII®-2	Lit. Index No. DC/10
Bobcat™	Lit. Index No. ED/4.31
Trailblazer®251 NT	Lit. Index No. ED/4.5
Big 40® G	Lit. Index No. ED/8.1
Big 40® Diesel	Lit. Index No. ED/9.6
Big Blue® 251D	Lit. Index No. ED/5.2
Big Blue® 600D	Lit. Index No. ED/10.3
Miller Air Pak™	Lit. Index No. ED/10.5

For Both Models

Big Blue® 402	Lit. Index No. ED/10.8
Pipe Pro 304	Lit. Index No. ED/10.6
Miller Du-Op	Lit. Index No. ED/10.9

Ordering Information and System Checklist

Equipment	Stock No.	Description	Qty.	Price
S-22P12	**#125 616** **#125 616-01-2** **#125 616-02-8**	Standard With meter kit (volt/wfs) With meter kit (volt/wfs), voltage control		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Remote Voltage Control	**#121 569**	Field		
Spot/Burnback Control	**#121 562**	Field		
Pre-Flow/Post-Flow Gas Control	**#121 563**	Field		
Meter Kit (volt/wfs)	**#121 568**	Field		
Gas Flowmeter	**#161 812**	Field		
S-22P12 Accessories				
Extension Cords (*one required)*	**#122 973** **#122 974** **#122 975**	25 ft (7.6 m) 50 ft (15 m) 75 ft (23 m)		
MIG Accessory Kit	**#173 856**	25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable and ground cable with clamp.		
PSA-2 Control	**#141 604**	Field		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	**#047 141**			
Super S-32P	**#159 928** **#159 928-02-1** **#159 928-03-1**	Standard With contactor, gas valve With contactor, gas valve, meters		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Secondary Contactor	**#156 464**	Field		
Gas Solenoid Valve	**#161 810**	Field		
Meter Kit	**#161 242**	Field		
Gas Flowmeter	**#161 812**	Field		
Super S-32P Accessories				
GA-40GL Gun		See Lit. Index No. M/9.0		
M-25, M-40 Gun		See Lit. Index No. M/10.0		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	**#047 141**			
Miscellaneous				
Consumables				
Primary Power Cable				
Secondary Power Cable				
Ground Cable with Clamp				
Gas Cylinder (if required)				
Gas Hose with Fittings (if required)				
Regulator/Flowmeter (if required)				
Welding Wire				
Compression Spring	**#057 745**	For 8 in (203 mm) spool of wire		
Helmet/Gloves				
Date:		**Total Quoted Price:**		

Miller
The Power of Blue.

Distributed by:

Litho in USA

S-22P12 and Super S-32P

Lightweight, Portable Wire Feeders

Index No. M/6.3
Issued Dec. 1999

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding (Gas and Self-shielded)

TRUE BLUE® 3 YR. WARRANTY

Lightweight and portable, these feeders are also durable, enclosed in steel-reinforced, impact-resistant and flame-retardant molded plastic cases.

They handle a wide variety of wire sizes and types, and include professional features for tough portable welding jobs.

Select either the Super S-32P for CC or CV-type voltage-sensing welding, or the S-22P12, for CV-type constant-speed welding with low-voltage 24 VAC operation. Their rugged portability makes these feeders great choices for all environments.

Applications

- Shipbuilding
- Construction
- Pipe welding
- Field maintenance and repair
- In-plant maintenance
- Outdoor equipment repair

Features	Benefits
For Both Wire Feeders	
Impact-resistant, flame-retardant case	Provides strength in a portable, lightweight package. Impact resistant case protects internal components from damage.
Totally enclosed	Protects components and welding wire from moisture, dust and other contaminants.
Non-conductive case	Eliminates high voltage lines and the potential of welding current shorting to the workpiece.
Quick-change drive rolls	Two gear-driven drive rolls are easy to change — no tools required.
Gas purge	Purges gas line without feeding wire.
Wire jog control	Feeds welding wire without energizing contactor.
Insulated gun-holding bracket	Convenient place for holding gun when not welding or when transporting the feeder.
Overload protection	Protects motor and control circuit against possible damage due to overloading conditions.
Solid-state speed control and brake circuit	Excellent speed control and regulation. Eliminates the need for electrical/mechanical relays. Increases service life.
Lightweight, suitcase-type feeder	Allows improved mobility and ease of carrying to remote welding sites.
Industrial, high-torque, 24 VDC drive motor	Excellent positive and accurate wire feeding performance.
S-22P12 Only	
Low voltage control — operates off 24 VAC remote control	Eliminates need for internal grounding of the feeder. Reduces the number of conductors required in the control cord from the power source to the feeder. Use with Miller CV power sources having a 14-pin receptacle and 24 VAC supply.
Super S-32P Only	
Operates on open-circuit and arc voltages	Only requires the secondary weld cable to power feeder. No control cord required.
Voltage-sensing control circuit with CC/CV switch	Allows the feeder to be used with most constant-current and constant-voltage DC power sources.

S-22P12 Specifications *(Subject to change without notice.)*

Industrial CV *(Use with CV Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
24 VAC, 3.5 A, 50/60 Hz	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	75–630 IPM (1.9–16 m/min)	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	29 lb (13.1 kg)

Super S-32P Specifications *(Subject to change without notice.)*

Heavy Industrial CC/CV DC *(Use with CC/CV, DC Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
Operates on open-circuit voltage and arc voltage 15 to 100 V	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	50–700 IPM (1.3–17.8 m/min) Actual range in CC mode is dependent on arc voltage applied.	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	32 lb (15 kg)

CSA NRTL/C® *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

When using an 8 in (203 mm) diameter spool of welding wire, compression spring **#057 745 is required.*

Ordering Information

☞ See back page.

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Phone: 920-735-4505
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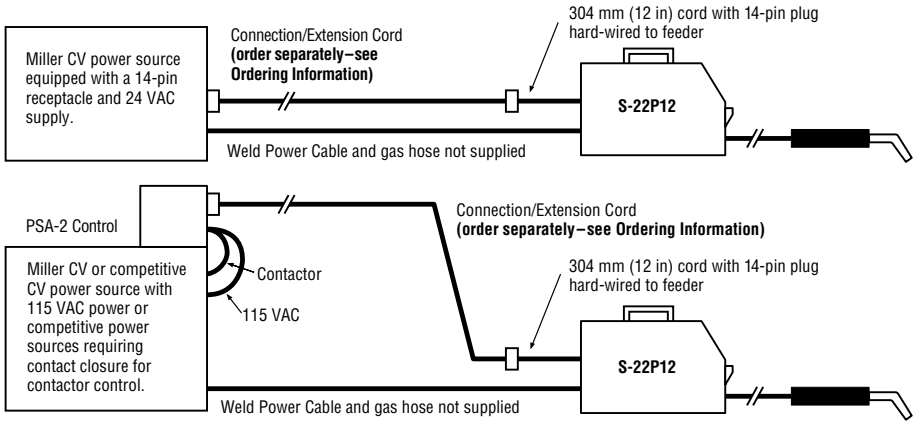
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

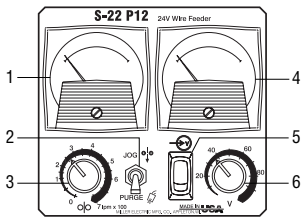
ISO 9001 REGISTERED QUALITY SYSTEM

S-22P12 Typical Installations


Miller CV power source equipped with a 14-pin receptacle and 24 VAC supply.
Connection/Extension Cord
(order separately–see Ordering Information)
304 mm (12 in) cord with 14-pin plug hard-wired to feeder
S-22P12
Weld Power Cable and gas hose not supplied
PSA-2 Control
Miller CV or competitive CV power source with 115 VAC power or competitive power sources requiring contact closure for contactor control.
Contactor
115 VAC
Connection/Extension Cord
(order separately–see Ordering Information)
304 mm (12 in) cord with 14-pin plug hard-wired to feeder
S-22P12
Weld Power Cable and gas hose not supplied

Note: If using the S-22P12 Ultra-Lite feeder with a power source having only 115 VAC supply, the PSA-2 (power supply adapter) is required. Refer to Optional Controls and Accessories section.

S-22P12 Control Panel

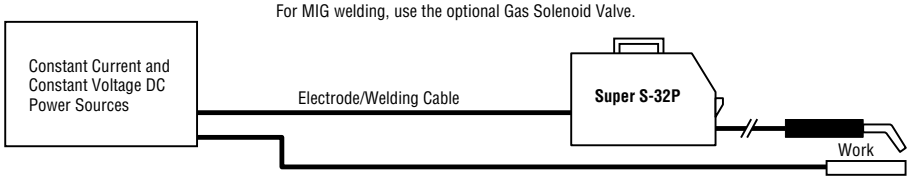


1. Wire Speed Meter*
2. Jog/Purge Switch
3. Wire Speed Control
4. Voltage Meter*
5. Power Control Switch
6. Remote Voltage Control*

**Optional*

Super S-32P Typical Installations

BASIC SET-UP — HOT WIRE
For MIG welding, use the optional Gas Solenoid Valve.



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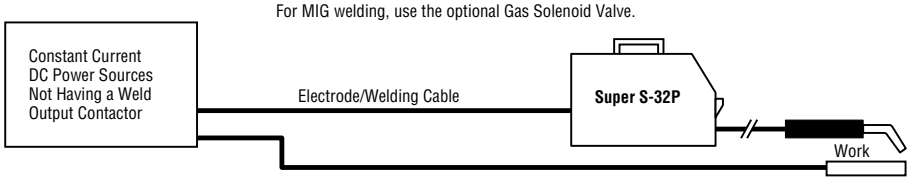
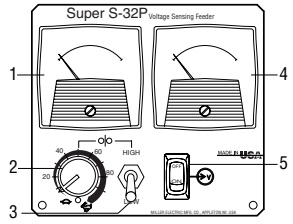
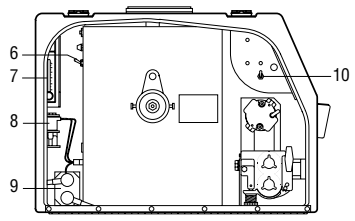


Super S-32P Control Panel





1. Wire Speed Meter*
2. Wire Speed Control
3. Wire Speed Range Switch
4. Voltage Meter*
5. Power Control Switch
6. CC/CV Switch
7. Flowmeter*
8. Gas Solenoid*
9. Secondary Contactor*
10. Purge Switch*

**Optional*

Nylon Wire Guides for Feeding Aluminum Wire *(Order from Miller Service Parts.)*

Wire Size	Inlet Guide
.047 in (1.2 mm) 1/16 in (1.6 mm)	**#151 203** **#151 205**

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Drive Roll Kits *(Order from Miller Service Parts.)*

Select drive roll kits from chart below according to type and wire size being used. Kit includes drive rolls and inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023 / .025 in (0.6 mm)	**#087 131**	—	—	—
.030 in (0.8 mm)	**#079 594**	—	—	—
.035 in (0.9 mm)	**#079 595**	**#044 749**	**#079 606**	—
.040 in (1.0 mm)	**#161 189**	—	—	—
.045 in (1.1/1.2 mm)	**#079 596**	**#079 599**	**#079 607**	**#083 318**
.052 in (1.3/1.4 mm)	**#079 597**	**#079 600**	**#079 608**	**#083 317**
1/16 in (1.6 mm)	**#079 598**	**#079 601**	**#079 609**	**#079 614**
.068/.072 in (1.8 mm)	—	—	**#089 984**	—
5/64 in (2.0 mm)	—	**#079 602**	**#079 610**	**#079 615**

Skill Level Index
The bracketed entry to the right of the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:
[B: 30] Skill Level: B, Time: 30 minutes

S-22P12 Options

Remote Voltage Control
#121 569 Field **[A: 10]**
Installs in front panel of feeder to allow remote voltage control of most Miller electronically controlled CV or CC/CV power sources having a 14-pin receptacle.

Notes: The standard Connection/Extension Cord listed under ordering information is also designed for use with the Remote Voltage Control.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

Spot/Burnback Control #121 562 [B: 20]
Installs inside feeder. Provides up to 5 seconds of spot weld time in two ranges. Time starts with depression of gun trigger switch. Burnback control up to 0.25 seconds. Can be used in the spot or continuous mode.

Note: Cannot be installed if Pre-Flow/Post-Flow Control is used.

Preflow/Postflow Gas Control #121 563 [B: 20]
Installs inside feeder. An adjustable timer (0.25 to 5 seconds) for controlling gas flow prior to arc initiation and after completion of weld.

Note: Cannot be installed if Spot Control is used.

Meter Kit – Voltage/Wire Feed Speed
#121 568 Field **[B: 25]**
Analog DC voltmeter and wire feed speed meter. The design of the meter and the S-22P12 circuit allow the wire feed speed to be pre-set. The voltage is displayed only while welding.

Gas Flowmeter
#161 812 Field **[A: 15]**
Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

S-22P12 Accessories

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15 m)
#122 975 75 ft (23 m)
These cords are used as interconnecting cords (between the feeder and the power source) and extension cords. For example, two 25 ft (7.6 m) cords can be used together to make a 50 ft (15 m) cord.

MIG Accessory Kit #173 856
25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable, and ground cable with clamp.

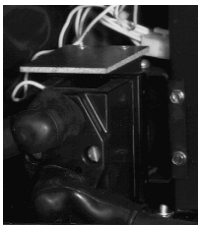
PSA-2 Control
#141 604 [A: 10]
Required when using the S-22P12 with power sources having only 115 VAC available. Mounts at power source and includes a 10 ft (3 m) 115 VAC cord and contactor cord with Hubbell connectors. A simple modification in the PSA-2 control also allows it to be used with competitive constant-voltage power sources requiring a contact closure for contactor control. The PSA-2 includes a 14-pin receptacle for direct connection of the standard interconnecting cord and optional extension cords. Bracket included for side mounting to the power source.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

GW-500 Gun
Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Super S-32P Options



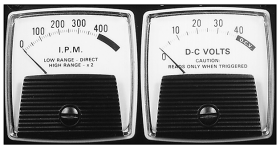
Secondary Contactor
#156 464 Field **[A: 15]**
Conveniently installs inside the feeder, allowing the welding wire to be electrically cold until the operator is ready to weld. Operates with straight or reverse polarity and features magnetic blow-outs to help preserve and extend service life of the contactor.

Contactor Rating:
400 amps at 30% duty cycle
330 amps at 60% duty cycle
250 amps at 100% duty cycle

Note: Can be ordered factory installed in option package.

Gas Solenoid Valve #161 810 Field **[A: 10]**
Required when using gas-shielded type wires. Includes purge control.

Note: Can be ordered factory installed in option package.



Meter Kit – Voltage/Wire Feed Speed
#161 242 Field **[B: 25]**
DC voltmeter and wire feed speed meter.

Note: Can be ordered factory installed in option package.

Gas Flowmeter
#161 812 Field **[A: 15]**
Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

Super S-32P Accessories

GA-40GL Gun
For self-shielded applications. Refer to gun Lit. Index No. M/9.0.

M-25 and M-40 Guns
For gas-shielded applications. Refer to gun Lit. Index No. M/10.0.

GW-500 Gun
Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Recommended Power Sources

For S-22P12

Regency® 250	Lit. Index No. DC/12.6
XMT® 304 CC/CV	Lit. Index No. DC/18.8
Shopmaster™	Lit. Index No. AD/2.3
CP-252TS	Lit. Index No. DC/13.0
CP-302	Lit. Index No. DC/13.0
Deltaweld® 302	Lit. Index No. DC/16.2
Trailblazer® 251 DT	Lit. Index No. ED/4.5
Trailblazer® 300D NT	Lit. Index No. ED/4.6

For Super S-32P

Dimension™	Lit. Index No. DC/19.2
Gold Star®	Lit. Index No. DC/8.1
Mark VI®	Lit. Index No. DC/9.8
Mark VIII®-2	Lit. Index No. DC/10
Bobcat™	Lit. Index No. ED/4.31
Trailblazer®251 NT	Lit. Index No. ED/4.5
Big 40® G	Lit. Index No. ED/8.1
Big 40® Diesel	Lit. Index No. ED/9.6
Big Blue® 251D	Lit. Index No. ED/5.2
Big Blue® 600D	Lit. Index No. ED/10.3
Miller Air Pak™	Lit. Index No. ED/10.5

For Both Models

Big Blue® 402	Lit. Index No. ED/10.8
Pipe Pro 304	Lit. Index No. ED/10.6
Miller Du-Op	Lit. Index No. ED/10.9

Ordering Information and System Checklist

Equipment	Stock No.	Description	Qty.	Price
S-22P12	**#125 616** **#125 616-01-2** **#125 616-02-8**	Standard With meter kit (volt/wfs) With meter kit (volt/wfs), voltage control		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Remote Voltage Control	**#121 569**	Field		
Spot/Burnback Control	**#121 562**	Field		
Pre-Flow/Post-Flow Gas Control	**#121 563**	Field		
Meter Kit (volt/wfs)	**#121 568**	Field		
Gas Flowmeter	**#161 812**	Field		
S-22P12 Accessories				
Extension Cords (*one required)*	**#122 973** **#122 974** **#122 975**	25 ft (7.6 m) 50 ft (15 m) 75 ft (23 m)		
MIG Accessory Kit	**#173 856**	25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable and ground cable with clamp.		
PSA-2 Control	**#141 604**	Field		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	**#047 141**			
Super S-32P	**#159 928** **#159 928-02-1** **#159 928-03-1**	Standard With contactor, gas valve With contactor, gas valve, meters		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Secondary Contactor	**#156 464**	Field		
Gas Solenoid Valve	**#161 810**	Field		
Meter Kit	**#161 242**	Field		
Gas Flowmeter	**#161 812**	Field		
Super S-32P Accessories				
GA-40GL Gun		See Lit. Index No. M/9.0		
M-25, M-40 Gun		See Lit. Index No. M/10.0		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	**#047 141**			
Miscellaneous				
Consumables				
Primary Power Cable				
Secondary Power Cable				
Ground Cable with Clamp				
Gas Cylinder (if required)				
Gas Hose with Fittings (if required)				
Regulator/Flowmeter (if required)				
Welding Wire				
Compression Spring	**#057 745**	For 8 in (203 mm) spool of wire		
Helmet/Gloves				
Date:		**Total Quoted Price:**		

Miller
The Power of Blue.

Distributed by:

Litho in USA

S-32S and S-32SL

Voltage-Sensing Wire Feeders

Index No. M/6.21
Issued Dec. 1999

Processes

Flux Cored (FCAW) Welding (Gas and Self-shielded)

MIG (GMAW) Welding

TRUE BLUE® 3 YR. WARRANTY

Simple to use but with all the features needed for heavy-duty wire feed applications... that's the S-32S and S-32SL wire feeders from Miller. Built with the strength and flexibility to handle the strenuous work loads of field and fabrication shops, the S-32S and S-32SL delivers proven reliability and performance.

These feeders operate off arc voltage, so a control cord is not required. Operates with most CV and CC DC-type power sources.

The S-32S and S-32SL handle the necessary high-end speed for small diameter wires, and the low-end speed and power for the more demanding larger diameter wires.

Applications

- Structural steel
- Building construction
- Bridge construction
- Field maintenance and repair
- Outdoor equipment repair and build-up work

Features	Benefits
Operates on open-circuit and arc voltages	Requires only the secondary weld cable to power feeder, no control cord needed.
Voltage-sensing control circuit with CC/CV switch	Allows the feeder to be used with most constant-current and constant-voltage DC power sources.
S-32S wire speed range: 50 – 700 IPM (1.3 – 18 m/min)	Accommodates a wide variety of wire sizes and types, .023 – 5/64 in (0.6 – 2.0 mm).
S-32SL wire speed range: 25 – 325 IPM (0.6 – 8.2 m/min)	Designed for 5/64 – 7/64 in (2.0 – 2.8 mm) diameter wire.
Polarity insensitive	Operates on straight (electrode negative) or reverse (electrode positive) polarity.
High-torque, 24 VDC drive motor with two gear-driven drive rolls	Offers excellent wire feeding performance and long uninterrupted service life.
Solid-state speed control and brake circuit	Exceptional speed control and regulation; eliminates the need for electrical/mechanical relays and increases service life.
Overload protection	Protects motor and control circuit against possible damage due to overloading conditions.
Quick-change drive rolls and quick connect for Miller guns	No tools required. Easy attachment.
Insulated gun-holding bracket	Convenient place for holding gun when not welding or when transporting the feeder.

Specifications *(Subject to change without notice.)*

Heavy Industrial CC/CV DC *(Use with CC/CV, DC Power Sources.)*

Model	Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity	Wire Feed Speed**	Dimensions	Net Weight
S-32S	Operates on open-circuit voltage and arc voltage 15 to 100 V	.023 – 5/64 in (0.6 – 2.0 mm)	60 lb (27 kg) coil	50 – 700 IPM (1.3 – 18 m/min)	L: 22 1/2 in (572 mm) W: 10 3/4 in (273 mm) H: 10 in (254 mm)	33 lb (15 kg)
S-S32SL*		5/64 – 7/64 in (2.0 – 2.8 mm)		25 – 325 IPM (0.6 – 8.2 m/min)		

When using an 8 in (203 mm) diameter spool of welding wire, compression spring **#057 745 is required. **Actual range is dependent on arc voltage applied.*

SA® NRTL/C *Certified by Canadian Standards Association to both Canadian and U.S. Standards.*

Ordering Information

☞ See back page.

Miller® The Power of Blue.

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

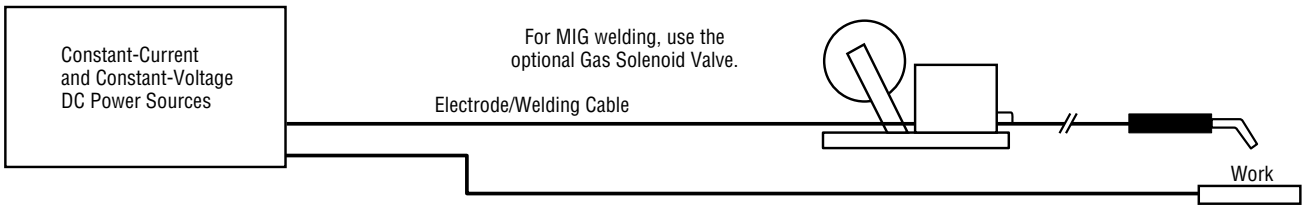
International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

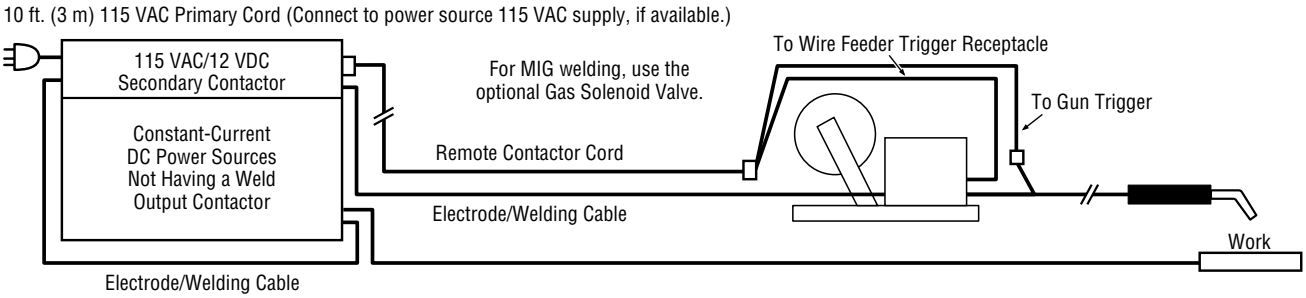
Typical Installations

BASIC SET-UP — HOT WIRE



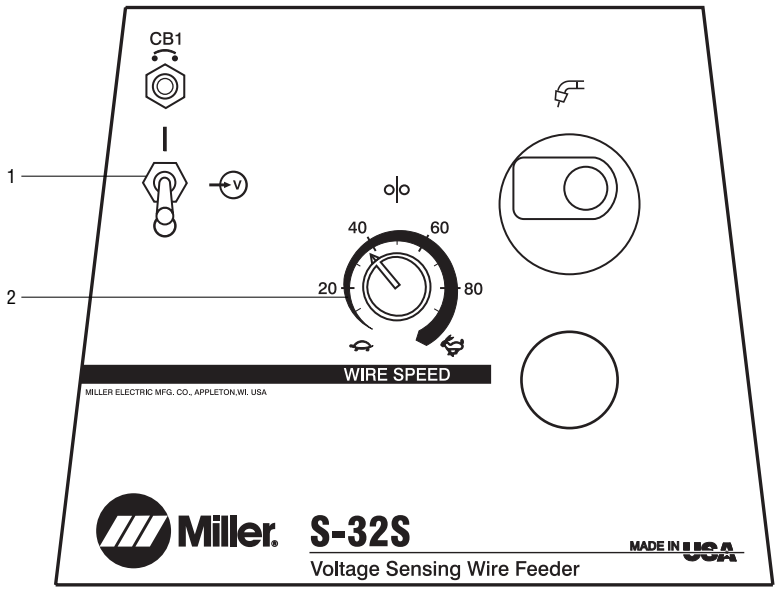
WITH OPTIONAL EXTERNAL SECONDARY CONTACTOR — COLD WIRE

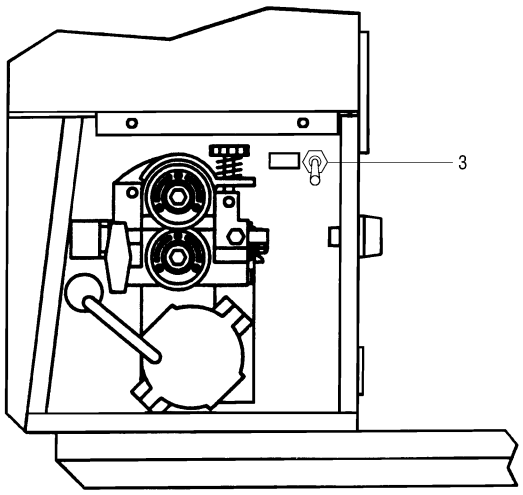
Note: The secondary contactor can be wired to operate off 115 VAC or powered off a 12 VDC battery of an engine driven welder.



Control Panel

1. Power Control Switch
2. Wire Speed Control
3. CC/CV Switch





Drive Roll Kits *(Order from Miller Service Parts.) Select drive roll kits from chart below according to type and wire size being used. Kit includes drive rolls and inlet guide.*

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023 / .025 in (0.6 mm)	**#087 131**	—	—	—
.030 in (0.8 mm)	**#079 594**	—	—	—
.035 in (0.9 mm)	**#079 595**	**#044 749**	**#079 606**	—
.040 in (1.0 mm)	**#161 189**	—	—	—
.045 in (1.1/1.2 mm)	**#079 596**	**#079 599**	**#079 607**	**#083 318**
.052 in (1.3/1.4 mm)	**#079 597**	**#079 600**	**#079 608**	**#083 317**
1/16 in (1.6 mm)	**#079 598**	**#079 601**	**#079 609**	**#079 614**
.068/.072 in (1.8 mm)	—	—	**#089 984**	—
5/64 in (2.0 mm)	—	**#079 602**	**#079 610**	**#079 615**
3/32 in (2.4 mm)	—	**#079 603**	**#079 611**	**#079 616**
7/64 in (2.8 mm)	—	**#079 604**	**#079 612**	**#079 617**

Options and Accessories

Skill Level Index
The box following the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A– Easy. No previous experience needed.
B– Average. Requires removal of service panels. Mechanical ability is helpful.
C– Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.
D– Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:
[B: 30] Skill Level: B, Time: 30 minutes

Gas Solenoid Valve
#093 768 Field **[A: 15]**
Required when using gas-shielded type wires. Includes purge control. Operates off the arc voltage and is designed for use with hot wire set-up or when using an external secondary contactor.

External Secondary Contactor
#108 921 [A: 10]
Contactor rating:
400 amps at 30% duty cycle
330 amps at 60% duty cycle
250 amps at 100% duty cycle

Allows the welding wire to be electrically cold until the operator is ready to weld. The contactor can be used with direct current (DC) power sources operating in either reverse (electrode positive) or straight (electrode negative) polarity. The contactor will operate off 115 VAC or can be connected to a 12 VDC battery of an engine driven welder not having 115 VAC auxiliary power available. The gun trigger switch controls the contactor and must remain closed while welding.

Note: 25 ft (7.6 m), #108 925, or 50 ft (15.2 m), #108 926, remote contactor cord required.

Wire Reel Assembly #108 008
For 60 lb (27.2 kg) coil of wire.

Spool Cover #090 389
For 12 in (305 mm) spool only.

Reel Cover #091 668
For 60 lb (27 kg) coil.

Compression Spring #057 745
Required when using 8 in (203 mm) diameter 10 lb (4.5 kg) and 15 lb (6.8 kg) spools of wire.

Spool Adapter #047 141
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

Remote Contactor Cables
#108 925 25 ft (7.6 m)
#108 926 50 ft (15.2 m)

Ordering Information and System Checklist

Equipment and Options	Stock No.	Description	Qty.	Price
S-32S	**#088 816**			
S-32SL	**#109 294**			
Drive Roll Kit		See table on page 3		
Gas Solenoid Valve	**#093 768**			
Power Sources				
Dimension™		See Lit. Index No. DC/19.2		
Gold Star®		See Lit. Index No. DC/8.1		
Mark VI®, VIII®-2		See Lit. Index No. DC/9.8, DC/10		
Bobcat™		See Lit. Index No. ED/4.31		
Trailblazer®251		See Lit. Index No. ED/4.5		
Big 40®G or Diesel		See Lit. Index No. ED/8.1, ED/9.6		
Big Blue® 251D		See Lit. Index No. ED/5.2		
Big Blue® 600D		See Lit. Index No. ED/10.3		
Miller Air Pak™				
Accessories				
External Secondary Contactor	**#108 921**			
Wire Reel Assembly	**#108 008**			
Spool Cover	**#090 389**			
Reel Cover	**#091 668**			
Compression Spring	**#057 745**	For 8 in spool of wire		
Spool Adapter	**#047 141**			
Remote Contactor Cables	**#108 925** **#108 926**	25 ft (7.6 m) 50 ft (15.2 m)		
GA-40GL Gun		See Lit. Index No. M/9.0		
M-25, M-40 Guns		See Lit. Index No. M/10.0		
GW-500 Gun		See Lit. Index No. M/13.4		
Miscellaneous				
Primary Power Cable				
Secondary Power Cable				
Ground Cable with Clamp				
Gas Cylinder (if required)				
Gas Hose with Fittings (if required)				
Regulator/Flowmeter (if required)				
Welding Wire				
Helmet				
Welding Gloves				
Date:		**Total Quoted Price:**		

Distributed by:

Miller®
The Power of Blue.

Litho in USA

70 Series

New!

Issued Feb. 2002 • Index No. M/3.0

Constant-Speed Wire Feeder

Quick Specs

CE

Heavy Industrial Applications
Heavy Manufacturing
Metal Fabrication
Construction
Light Manufacturing

Processes
MIG (GMAW)
Flux Cored (FCAW)
(Gas- and Self-Shielded)

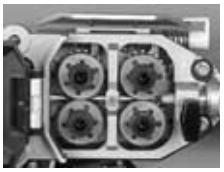
Input Power 24 VAC, 10 A, 50/60 Hz
Electrode Wire Diameter Capacity .023–1/8 in (0.6–3.2 mm)
Wire Speed 50–780 IPM (1.3–19.8 m/min)
Weight 58 lb (26 kg)

The Power of Blue®

The next generation of industrial-class wire feeders. All the features of the 60 Series, plus enhanced flexibility and additional features.

Models:
74S: Standard, basic design
74D: Digital meters
74DX: Deluxe—digital, full-feature

Toolless rotatable drive assembly allows operator to rotate the drive housing, eliminating severe bends in the wire feed path which reduce gun liner life. Also aids in feeding difficult wires.



Dual tension control adds flexibility for the operator to fine-tune the pressure on the wire independently when feeding a variety of wires.

Trigger receptacle oriented in a downward position to reduce potential damage.

Trigger hold reduces operator fatigue by allowing the operator to make long welds without having to energize the trigger continuously.

Automatic run-in control significantly improves arc starting performance.

10 ft, 14-pin interconnecting cord for the operator to hook up.

Posifeed™ Wire Drive Assembly Features

- 24 VDC high-torque, permanent-magnet motor.
- Quick-change drive rolls.
- Quick-release, calibrated drive-roll pressure adjustment arm allows drive roll change without losing spring preload setting.
- **Four sealed ball bearing all-gear-driven drive-roll carriers** for smooth, positive and accurate wire feed with long uninterrupted service life.
- Easy loading and threading of welding wire without having to release the drive-roll pressure arm.
- **Solid-state speed control and brake circuit** eliminates the need for electrical/ mechanical relays and increases service life.
- Uses Miller standard 1-5/8 in (41 mm) diameter drive rolls.
- Quick-connect for all Miller guns.
- Covered drive rolls—easy access, heavy-duty, molded composite cover over drive assembly.
- Floating positive drive systems provide trouble-free feeding on a variety of wires.

DX Models Additional Features

Dual schedule allows operator to switch between two welding parameters without readjusting machine, eliminating downtime and enhancing quality.

Adjustable weld sequence control gives operator complete control of the welding parameters: preflow, run-in, weld time, crater, burnback and postflow.

Welding process range control locks parameters at a set percentage of welding parameters to ensure welding procedures and quality standards are maintained on the shop floor.

Four weld programs allow the operators to store four independent welding parameters reducing welding setup time. (Four programs available per side on dual model.)

TRUE BLUE® 3YR. WARRANTY

Wire feeder is warranted for 3 years, parts and labor.

MADE IN USA
APPLETON, WI

Miller®

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

Specifications (Subject to change without notice.)

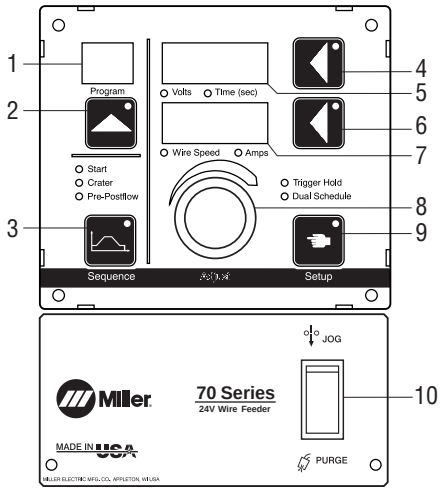
CV (Use with CV Power Sources.)

Input Power	Electrode Wire Diameter Capacity	Wire Speed	Dimensions S-74 (Single)	D-74 (Dual)	Net Weight S-74 (Single)	D-74 (Dual)
24 VAC, 10 A, 50/60 Hz	.023–1/8 in (0.6–3.2 mm) (1/8 in wires may require low-speed motor)	50–780 IPM (1.3–19.8 m/min) Optional High Speed Motor: 90–1440 IPM (2.3–36.6 m/min)	H: 14 in (356 mm) W: 12 in (305 mm) D: 26-1/2 in (673 mm)	H: 14 in (356 mm) W: 12-1/2 in (318 mm) D: 35 in (889 mm)	58 lb (26 kg)	87 lb (35.5 kg)

Control Panel

S-74DX Model

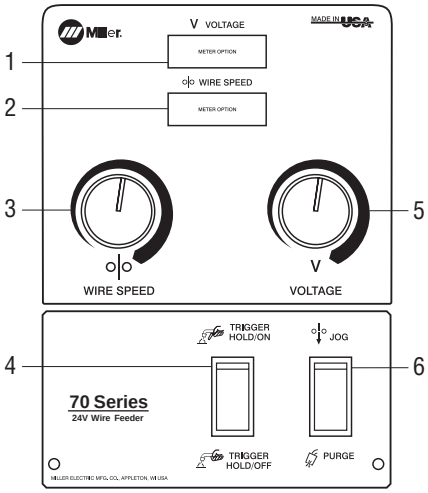
1. Program Display
2. Program # Select
3. Weld Sequence
4. Voltage/Time Select
5. Voltage/Time Display Meter
6. Wire Feed/ Amperage Select
7. Wire Speed/ Amperage Display Meter
8. Control Knob
9. Trigger Hold/Dual Schedule Control
10. Jog/Purge



S-74S and S-74D Model

1. Voltage Display Meter*
2. Wire Speed Display Meter*
3. Wire Feed Speed Select
4. Trigger Hold
5. Voltage Select**
6. Jog/Purge

S-74D model only
****Optional on S-74S***



Drive Roll Kits and Guides (Order from Miller Service Parts.)

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include 4 drive rolls, the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire Size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023/.025 in (0.6 mm)	**#151 024**	—	—	—
.030 in (0.8 mm)	**#151 025**	—	—	—
.035 in (0.9 mm)	**#151 026**	**#151 036**	**#151 052**	—
.040 in (1.0 mm)	**#161 190**	—	—	—
.045 in (1.1/1.2 mm)	**#151 027**	**#151 037***	**#151 053**	**#151 070**
.052 in (1.3/1.4 mm)	**#151 028**	**#151 038**	**#151 054**	**#151 071**
1/16 in (1.6 mm)	**#151 029**	**#151 039**	**#151 055**	**#151 072**
.068/.072 in (1.8 mm)	—	—	**#151 056**	—
5/64 in (2.0 mm)	—	**#151 040**	**#151 057**	**#151 073**
3/32 in (2.4 mm)	—	**#151 041**	**#151 058**	**#151 074**
7/64 in (2.8 mm)	—	**#151 042**	**#151 059**	**#151 075**
1/8 in (3.2 mm)	—	**#151 043****	**#151 060****	**#151 076****

Accommodates .045 and .047 (3/64 in) wire.* * May require a low-speed, wire-feed drive-roll option.*

Nylon Wire Guides for Feeding Aluminum Wire

Wire Size	Inlet Guide	Intermediate Guide
.047 in (1.2 mm)	**#151 203**	**#151 204**
1/16 in (1.6 mm)	**#151 205**	**#151 206**
3/32 in (2.4 mm)	**#151 207**	**#151 208**

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023–.040 in (0.6–1.0 mm)	**#150 993**	**#149 518**
.045–.052 in (1.1–1.4 mm)	**#150 994**	**#149 519**
1/16–5/64 in (1.6–2 mm)	**#150 995**	**#149 520**
3/32–7/64 in (2.4–2.8 mm)	**#150 996**	**#149 521**
1/8 in (3.2 mm)	**#150 997**	**#149 522**

Miller

Genuine Miller Options and Accessories

Remote Voltage Control
#194 988 Field Non-digital for S-74S
#194 991 Field Non-digital for D-74S

Conversion Kit
#194 989 Field S-74S to S-74D
#194 992 Field D-74S to D-74D
#195 010 Field S-74S to S-74DX
#195 041 Field D-74S to D-74DX

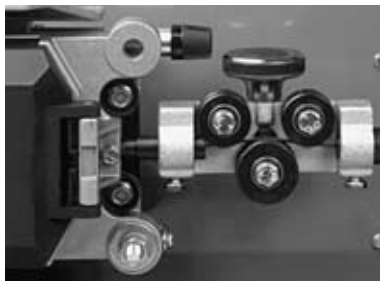
Control Detachment Kit
#194 914 Field 10 ft (3 m) for S-74
#194 913 Field 25 ft (7.6 m) for S-74
#194 995 Field 25 ft (7.6 m) for D-74
Allows separation of the control module from the wire drive assembly and base.

Carrying Cart #056 301
A utility cart for the wire feeder and other miscellaneous welding supplies. Height: 34 in (863 mm). Lower tray height: 9 in (228 mm). Shipped disassembled.

Feeder Cart #142 382
A low-profile, creeper cart which allows the operator to easily move the feeder around the work area. Shipped disassembled.

Turntable Assembly #146 236
Allows rotation of the feeder as the operator changes work positions. Reduces strain and bending on the gun cable.

Hanging Bail (Electrically Isolated) #058 435
Used for suspending feeder over work area.



Wire Straightener
#141 580 For .035–.045 in (0.9–1.1 mm) diameter wire.
#141 581 For 1/16–1/8 in (1.6–3.2 mm) diameter wire.
Helps reduce the cast in wire to improve wire feeding performance and increase the service life of the gun liner and contact tip.

Spool Covers
#057 607 For S-74 and left side of D-74 models
#090 389 For right side of D-74 models
For 12 in (305 mm) spool.

Wire Reel Assembly #108 008
For 60 lb (27 kg) coil of wire.

Reel Covers
#058 256 For S-74 and left side of D-74 models
#091 668 For right side of D-74 models
For 60 lb (27 kg) coil. Helps to protect the welding wire from dust and other contaminants.
Note: Reel and Spool Covers cannot be installed if the wire drive assembly is in a rotated position.

Spool Adapter #047 141
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

2/0 MIG Welding Accessory Kit #173 856
25 ft (7.6 m). Includes gas hose, weld cable and ground cable with clamp.

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15 m)
#122 975 75 ft (23 m)
Provides 14-pin, 24 VAC, contactor and voltage control. Add to the standard 10 ft (3 m) feeder cord to extend feeder farther from power source.

Dual Schedule Switches

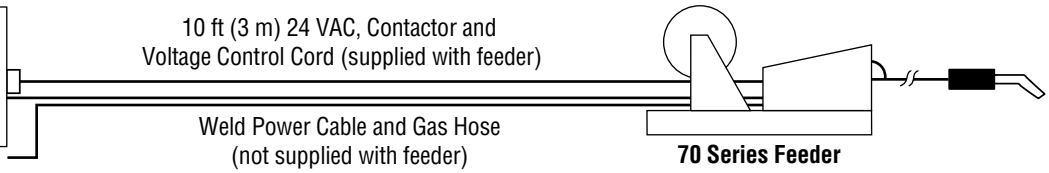
DSS-8 #079 693
A two-position trigger switch which attaches to the gun handle and is used in place of the standard trigger for dual scheduling. ***(For 74DX models only.)***

DSS-9 #071 833
A two-position slide switch which attaches to the gun handle and is used to select the desired welding condition for dual schedule purposes. The gun trigger operates as a standard gun trigger. ***(For 74DX models only.)***

Swingarc™ Boom-Mounted Wire Feeders
Swingarc boom-mounted semiautomatic wire feeders bring an extra dimension of flexibility and efficiency to high-production wire welding stations. You get an effective solution that maximizes output, especially when dealing with large weldments and hard-to-reach places. See Lit. Index No. M/13.1.

Typical Installation

Miller electrically controlled CV and CC/CV power source with a 14-pin receptacle and 24 VAC supply


10 ft (3 m) 24 VAC, Contactor and
Voltage Control Cord (supplied with feeder)
Weld Power Cable and Gas Hose
(not supplied with feeder)
70 Series Feeder

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
S-74S	**#195 057** **#195 057-02-1**	 With **CE**, Euro		
S-74D	**#195 058** **#195 058-01-1** **#195 058-02-1** **#195 058-03-1**	 With high-speed motor With **CE**, Euro With **CE**, Euro, high-speed motor		
S-74DX	**#195 059** **#195 059-01-1** **#195 059-02-1** **#195 059-03-1**	 With high-speed motor With **CE**, Euro With **CE**, Euro, high-speed motor		
D-74S (available January 2002)	**#195 060** **#195 060-02-1**	 With **CE**, Euro		
D-74D (available January 2002)	**#195 061** **#195 061-01-1** **#195 061-02-1** **#195 061-03-1**	 With high-speed motor With **CE**, Euro With **CE**, Euro, high-speed motor		
D-74DX (available January 2002)	**#195 062** **#195 062-01-1** **#195 062-02-1** **#195 062-03-1**	 With high-speed motor With **CE**, Euro With **CE**, Euro, high-speed motor		
Remote Voltage Control	**#194 988** **#194 991**	Field. Non-digital control *(S-74S model only)* Field. Non-digital control *(D-74S model only)*		
Conversion Kit	**#194 989** **#194 992** **#195 010** **#195 041**	Field. S-74S to S-74D Field. D-74S to D-74D Field. S-74S to S-74DX Field. D-74S to D-74DX		
Control Detachment Kit	**#194 914** **#194 913** **#194 995**	Field. 10 ft (3 m) *(S-74S model only)* Field. 25 ft (7.6 m) *(S-74S model only)* Field. 25 ft (7.6 m) *(D-74S model only)*		
Power Sources				
CP-252TS and CP-302		See Lit. Index No. DC/31 and DC/13.0		
Invision™ 354 MP and 456MP, 456P		See Lit. Index No. DC/23, DC/20		
Deltaweld® Series		See Lit. Index No. DC/16.2		
XMT® Series		See Lit. Index No. DC/18.8		
Dimension™ Series		See Lit. Index No. DC/19.2		
Accessories				
Adapter Kit	**#195 043**	Makes 70 Series feeder compatible with older-style power sources		
Carrying Cart	**#056 301**			
Feeder Cart	**#142 382**			
Turntable Assembly	**#146 236**			
Hanging Bail	**#058 435**	Electrically isolated		
Wire Straightener		See page 3		
Spool Covers	**#057 607** **#090 389**	For S-74 and left side of D-74 models For right side of D-74 models		
Wire Reel Assembly	**#108 008**			
Reel Covers	**#058 256** **#091 668**	For S-74 and left side of D-74 models For right side of D-74 models		
Spool Adapter	**#047 141**			
2/0 MIG Welding Accessory Kit	**#173 856**			
Extension Cords		See page 3		
Dual Schedule Switches	**#079 693** **#071 833**	DSS-8 *(74DX models only)* DSS-9 *(74DX models only)*		

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

Spool Guns and Controls

Spoolmate™ 3035, Spoolmate™ 3545, and Spoolmatic® 30A

Issued Dec. 2001 • Index No. M/1.5

Aluminum Wire Feeder

Quick Specs

Light and Heavy Industrial Applications
Aluminum Fabrication
Sign Manufacturing
Trailers
Auto and Marine Repair

Processes
MIG (GMAW) with aluminum and other soft alloy wires

Weight
Spoolmate 3035: 9 lb (4.1 kg) with cable assembly
Spoolmate 3545: 10 lb (4.5 kg) with cable assembly
Spoolmatic 30A: 14 lb (6.4 kg) with cable assembly

The Power of Blue®

Spoolmate™ 3035

These reliable yet economical Spoolmate spool guns **provide 20 ft cable reach and accessibility**, with **smooth feeding** of aluminum wire.

Spoolmatic® 30A

Industrial, well-balanced Spoolmatic 30A spool gun features a **built-in gas valve, rotatable canister, reversible drive roll and 30 ft cable reach.**

Spoolmate™ 3545

Selecting a Spool Gun

What wire sizes are you running?	What welding output?	Recommended gun
.023 – .035 in	150 A at 60% duty cycle — light industrial applications	Spoolmate 3035
.030 – .047 in	200 A at 60% duty cycle — light industrial applications	Spoolmate 3545
.023 – 1/16 in	200 A at 100% duty cycle — light and heavy industrial applications	Spoolmatic 30A

TRUE BLUE® WARRANTY

Spoolmate guns warranted for 90 days, parts and labor. Spoolmatic 30A gun warranted for 1 year, parts and labor.

Miller®

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

Specifications (Subject to change without notice.)

(Use with CC/CV, DC Power Sources.)

Spool Gun Specifications

Model	Welding Output Rating	Electrode Wire Diameter Capacity	Wire Speed	Maximum Spool Size Capacity	Dimensions	Net Weight with Cable Assembly
Spoolmate 3035	150 A at 60% Duty Cycle	.023–.035 in (0.6–0.9 mm) aluminum, steel and stainless steel	115–715 IPM	4 in (102 mm)	H: 11-1/2 in (291 mm) W: 2-1/4 in (57 mm) L: 8 in (203 mm)	9.1 lb (4.1 kg)
Spoolmate 3545	200 A at 60% Duty Cycle	.030–.047 in (0.8–1.2 mm) aluminum, steel and stainless steel	200–1200 IPM			10 lb (4.5 kg)
Spoolmatic 30A	200 A at 100% Duty Cycle	.023–1/16 in (0.6–1.6 mm) aluminum and hard wires up to .045 in (1.1 mm)	70–875 IPM		H: 10-1/4 in (260 mm) W: 2-1/2 in (64 mm) L: 15-1/8 in (384 mm)	14 lb (6.4 kg)

Spool Gun Control Specifications

Usage	Model	Input Power	Dimensions	Net Weight
For Spoolmate 3035 and 3545	SGA 100	115 VAC, 50/60 Hz	H: 4-1/4 in (108 mm) W: 6-3/8 in (162 mm) L: 10-1/2 in (267 mm)	9.1 lb (4.1 kg)
	SGA 100C	115 VAC, 50/60 Hz	H: 8-1/4 in (210 mm) W: 6-3/8 in (162 mm) L: 10-1/2 in (267 mm)	12 lb (5.4 kg)
For Spoolmatic 30A	WC-24	24 VAC, 50/60 Hz	H: 7 in (178 mm) W: 5-1/2 in (140 mm) L: 2 in (51 mm)	2 lb (0.9 kg)
	WC-115A	115 VAC, 50/60 or 100 Hz	H: 10 in (254 mm) W: 9-1/2 in (241 mm) L: 13 in (330 mm)	20 lb (9 kg)

Spool Gun Hook-Up Recommendations

Power Source	Effective Serial Number	Spoolmate 3035 #195 016 150 A, 60% Duty Cycle	Spoolmate 3545 #195 015 200 A, 60% Duty Cycle	Spoolmatic 30A #130 831 200 A, 60% Duty Cycle
Millermatic® 130 XP, 135	All	Limited to 14 gauge–1/8 in material SGA 100 required **#043 856**	Not recommended	Not recommended
Millermatic® Challenger 172, 175	All	SGA 100 required **#043 856**	Not recommended	Not recommended
Millermatic® 185	Prior to **#KH376829**	Retrofit Kit required **#186 871**	Retrofit Kit required **#186 871**	Not recommended
	After **#KH376829**	Direct hook-up with toggle switch	Direct hook-up with toggle switch	Not recommended
Millermatic® 210	All	Direct hook-up, Gun-On-Demand™	Direct hook-up, Gun-On-Demand™	Not recommended
Millermatic® Vintage, 250	All	Not recommended	SGA 100 required **#043 856**	Module required **#043 084**
Millermatic® 250X, 251	All	Not recommended	Not recommended	Direct hook-up

Spoolmate Spool Gun Controls

SGA 100 #043 856
Required to connect Spoolmate spool gun to the Millermatic 135 or 175. Allows you to connect a Spoolmate gun to virtually any similar MIG welder—Miller or other brands.

Includes 10 ft (3 m) 115 VAC power cable and plug, 6 ft (1.8 m) interconnecting cable, and 5 ft (1.5 m) gas hose.

Note: For CV engine drives like Miller Bobcat™, use the SGA 100C with contactor (#043 857).

SGA 100C #043 857
SGA with contactor required to connect Spoolmate spool gun to CV engine drives like Miller's Bobcat™.

Includes 10 ft (3 m) 115 VAC power cable and plug, 6 ft (1.8 m) interconnecting cable, and 5 ft (1.5 m) gas hose.

Genuine Miller Spoolmate Consumables and Accessories (Order Consumables from Miller Service Parts.)

Consumables For Spoolmate 3035

Contact Tips (5 per package)
#199 730 For .023 in (0.6 mm) wire.
#186 419 For .030 in (0.8 mm) wire.
#186 406 For .035 in (0.9 mm) wire.

Nozzle #186 405

Drive Roll (1)
#199 731 For .023 in (0.6 mm) wire.
#186 413 For .030/.035 in (0.8/0.9 mm) wire.

Push Roll (1)
#199 732 For .023 in (0.6 mm) wire.
#186 414 For .030/.035 in (0.8/0.9 mm) wire.

Consumables For Spoolmate 3545

Contact Tips (5 per package)
#199 387 For .030 in (0.8 mm) wire.
#199 388 For .035 in (0.9 mm) wire.
#199 389 For .047 in (1.2 mm) wire.

Nozzle #199 386

Drive Roll (1)
#186 413 For .030/.035 in (0.8/0.9 mm) wire.
#199 396 For .047 in (1.2 mm) wire.

Push Roll (1)
#186 414 For .030/.035 in (0.8/0.9 mm) wire.
#199 397 For .047 in (1.2 mm) wire.

Accessories

Note: When using with a Spoolmate 3545, ratings are reduced to 150A, 60% Duty Cycle.

Spoolmate™ Curved Barrel Assembly
#198 371

Spoolmate™ 9-in Straight Barrel Assembly
#198 372

25 ft Extension Cable #194 996

Spoolmatic 30A Spool Gun Controls

WC-24 Weld Control #137 549
Packaged in a compact, lightweight, non-metallic enclosure, the WC-24 easily mounts directly on the power source. It's designed for use with Miller CV power sources supplying 24 VAC and 14-pin receptacles. The control includes a board-mounted potentiometer which can alter the drive motor acceleration rate to optimize arc starting performance.

WC-115A Weld Control
#137 546 Without contactor
#137 546-01-1 With contactor
This control operates on 115 VAC, and is designed primarily for CC DC power sources. It can also be used with CV power sources or DC engine drives supplying 115 VAC. When used with a CC source, the control circuit functions in a voltage-sensing mode. When used with a CV source, it functions as a constant-speed circuit.

Standard features include a wire run-in control and a drive motor acceleration control which ensure optimum arc starting performance, regardless of the type of power source being used. The WC-115A comes with a 10 ft (3 m), wall-type plug power cord.

WC-115 Contactor Kit #137 548 Field Recommended when using the Spoolmatic gun and WC-115A control with power sources that do not have a weld output contactor. (This is installed in the WC-115A.)

Contactor Rating:
400 amps at 30% duty cycle
330 amps at 60% duty cycle
250 amps at 100% duty cycle

Genuine Miller Spoolmatic 30A Consumables (Order from Miller Service Parts.)

Contact Tips					Gun Head Tube Liner	Drive Rolls	
Wire Size	Standard	Tip I.D.	Optional	Tip I.D.		Dual Groove for All Wire Sizes (Supplied with Gun)	Dual Groove for One Wire Size (Optional)
.023 in (0.6 mm)	**#136 171**	.031 in (0.8 mm)	–	–	**#136 682**	**#136 135** (use small groove)	**#183 357** (.023 in / 0.6 mm)
.030 in (0.8 mm)	**#135 428**	.041 in (1.0 mm)	**#135 427**	.036 in (0.9 mm)	**#136 682**	**#136 135** (use small groove)	**#183 357** (.030 in / 0.8 mm)
.035 in (0.9 mm)	**#135 430**	.052 in (1.3 mm)	**#147 314**	.041 in (1.0 mm)	**#136 682**	**#136 135** (use small groove)	**#183 357** (.035 in / 0.9 mm)
.047 in (1.2 mm)	**#135 424**	.061 in (1.5 mm)	**#135 429**	.052 in (1.3 mm)	**#136 683**	**#136 135** (use large groove)	**#183 358** (.047 in / 1.2 mm)
.062 in (1.6 mm)	**#135 425**	.081 in (2.1 mm)	**#135 426**	.073 in (1.9 mm)	**#136 683**	**#136 135** (use large groove)	**#183 358** (.062 in / 1.6 mm)

Each gun is shipped with (3) .035 in and (3) .047 in standard tips. The optional contact tips listed are for those applications where a smaller I.D. tip is preferred. All contact tips are stamped with wire size and the tip I.D. For example: .035/52 designates .035 in wire and .052 in tip I.D.

Standard Nozzles

#050 622
5/8 in (16 mm) orifice (Standard with gun)

#050 116
13/16 in (21mm) orifice

#050 115
1/2 in (13 mm) orifice

Spot Nozzles

#009 925
Outside corner

#000 443
Inside corner

#000 442
Flat 15/16 in (24 mm) orifice

#004 466
Flat 1-3/8 in (35 mm) orifice

Contact Tip Conversion Kits

Note: Both kits include liners and contact tips for all wire sizes.

For Older-Style Spoolmatic Guns
#156 485
Allows older-style Spoolmatic guns to use the new Spoolmatic 30A 1-7/16 in (37 mm) long contact tips.

For Newer-Style Spoolmatic Guns
#164 603
Allows newer-style Spoolmatic guns to use the older-style Spoolmatic 4 in (102 mm) long contact tips.

Genuine Miller Spoolmatic 30A Accessories

SX-A 50-Degree Curved Barrel
#147 175 6 in (152 mm)
#147 176 10 in (254 mm)
Used with .030–1/16 in (0.8–1.6 mm) wire. Kits supplied with two liners that accommodate all wire sizes.

Note: Uses standard Spoolmatic contact tips. (Refer to Spoolmatic Gun Consumables chart for contact tips.)

SX-A 50-Degree Curved Nozzle Kit #147 174
Attaches to standard gun barrel assembly and is ideal for access to confined weld joint areas. Used with .030–1/16 in (0.8–1/6 mm) wire. Kit includes two of each size contact tips to accommodate all wire sizes. Uses standard straight barrel head tube liner.

SX Flex Head Kit #131 104
For .030–1/16 in (0.8–1.6 mm) wire. Used in place of the standard straight barrel. Flexible head tube bends 60 degrees in any direction for easier joint access and improved operator comfort. Supplied with two Teflon liners and one contact tip for each wire size listed.

3 in Head Tube Extension #137 787
Extends the standard gun barrel 3 in (72 mm) when a longer reach is required. The head tube extension is supplied with two liners to accommodate all wire sizes.

Note: Uses standard Spoolmatic contact tips. (Refer to Spoolmatic Gun Consumables chart for contact tips.)

Cable Cover #118 678
Protects gun hose and cable assembly from wear and abrasion. Features a full-length zipper.

SX Heat Shield #131 103
Helps protect operator's hand from spatter and reflected heat.

Spare Spool Canister #132 230
Canister accommodates 4 in (102 mm) spools of wire. Can be loaded with other popular wires to save time in changeover.

Hose and Cable Extension Kits
#132 228 25 ft (7.6 m)
#132 229 50 ft (15 m)
Extends Spoolmatic 30A away from the control box. Convenient plug-in connections. Includes gas hose, control cord, and weld power cable with International-style insulated connector.

Replacement Parts

Teflon Liners for Curved Barrels

For 6 in Barrel
#144 858 .030–.035 in (0.8–0.9 mm) wire
#144 859 .047–1/16 in (1.2–1.6 mm) wire

For 10 in Barrel
#144 854 .030–.035 in (0.8–0.9 mm) wire
#144 855 .047–1/16 in (1.2–1.6 mm) wire

Contact Tips for Curved Nozzle
#148 155 .030–.035 in (0.8–0.9 mm) wire
#148 154 .047 in (1.2 mm) wire
#148 156 1/16 in (1.6 mm) wire

Liners for Flex Head
#138 255 .030–.035 in (0.8–0.9 mm) wire
#132 682 .047–1/16 in (1.2–1.6 mm) wire

Liners for Head Tube Extension
#138 223 .030–.035 in (0.8–0.9 mm) wire
#138 224 .047–1/16 in (1.2–1.6 mm) wire

Typical Installations

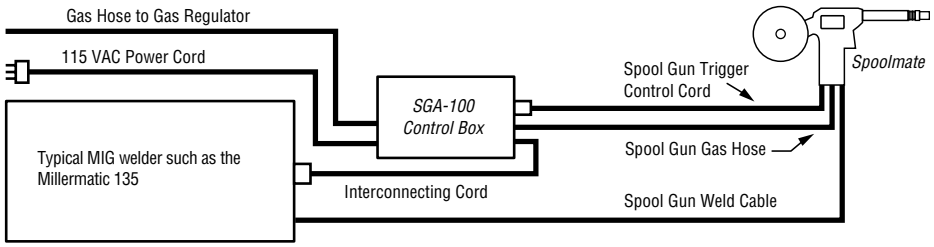
Spoolmate Gun to Welder Requiring a SGA Spool Gun Adapter

Note: Refer to SGA Owner's Manual for complete installation instructions.

For Millermatic 135, combine Spoolmate 3035 with SGA 100 to weld 14 gauge to 1/8 in aluminum.

For Millermatic 175, combine Spoolmate 3035 with SGA 100 to weld 14 gauge to 1/4 in aluminum.

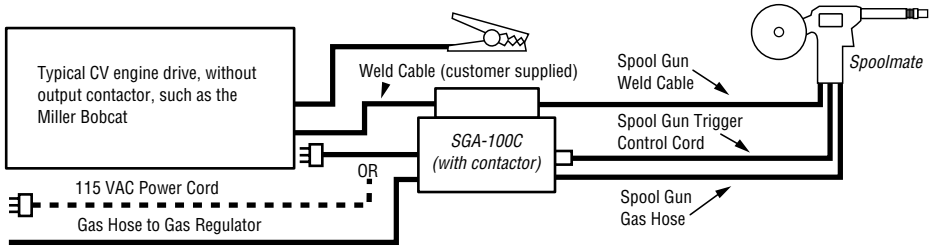
To weld aluminum with comparable, competitive power sources, the Spoolmate may also be used with one of the SGA units.


Gas Hose to Gas Regulator
115 VAC Power Cord
Typical MIG welder such as the Millermatic 135
SGA-100 Control Box
Interconnecting Cord
Spool Gun Trigger Control Cord
Spool Gun Gas Hose
Spool Gun Weld Cable
Spoolmate

The SGA 100C is necessary when connecting Spoolmate spool guns to CV engine drive units. Thickness will depend on engine drive.

For Miller's Bobcat 225NT, combine Spoolmate 3545 with SGA 100C to weld 14 gauge to 3/16 in aluminum.

To weld aluminum with comparable, competitive power sources, the Spoolmate may also be used with one of the SGA units.

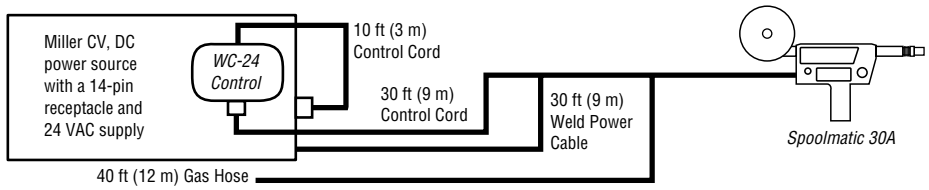

Typical CV engine drive, without output contactor, such as the Miller Bobcat
Weld Cable (customer supplied)
115 VAC Power Cord
Gas Hose to Gas Regulator
OR
SGA-100C (with contactor)
Spool Gun Weld Cable
Spool Gun Trigger Control Cord
Spool Gun Gas Hose
Spoolmate

Spoolmatic 30A

Note: Cords and cables are supplied unless noted otherwise on drawings below. Refer to Owner's Manual for complete installation instructions.

To connect the Spoolmatic 30A and WC-24 control to older-style Miller or competitive CV power sources that **do not** have a 24 VAC supply, the PSA-2 control **#141 604** is required.

To connect Spoolmatic 30A gun and WC-24 control to Millermatic® 200 and Spoolmate™ 200 power sources that have a 4-pin receptacle, order adapter cord **#042 236**.


Miller CV, DC power source with a 14-pin receptacle and 24 VAC supply
WC-24 Control
10 ft (3 m) Control Cord
30 ft (9 m) Control Cord
30 ft (9 m) Weld Power Cable
40 ft (12 m) Gas Hose
Spoolmatic 30A

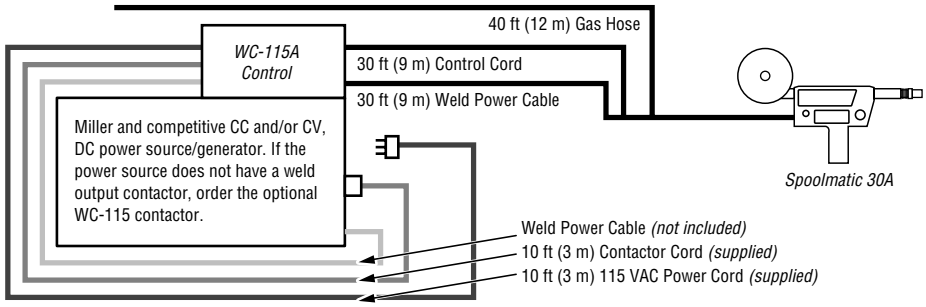
To connect the WC-115A control to older-style Miller power sources having Hubbell or 5-pin contactor control receptacles, the appropriate connector must be ordered **separately**:

To connect to older-style Miller CC power sources having a two-socket Hubbell connector, order plug **#039 618**.

If power source has a 5-pin receptacle, order **#039 273 and #039 685**.

To connect to older-style Miller CV power sources having a two-prong Hubbell connector, order plug **#039 635**.

Note: These connectors are to replace the 14-pin connector on the 10 ft interconnect contactor cord.


WC-115A Control
Miller and competitive CC and/or CV, DC power source/generator. If the power source does not have a weld output contactor, order the optional WC-115 contactor.
40 ft (12 m) Gas Hose
30 ft (9 m) Control Cord
30 ft (9 m) Weld Power Cable
Weld Power Cable (not included)
10 ft (3 m) Contactor Cord (supplied)
10 ft (3 m) 115 VAC Power Cord (supplied)
Spoolmatic 30A

Notes

Ordering Information

Equipment	Stock No.	Description	Qty.	Price
Spoolmate™ 3035 Spool Gun	**#195 016**	Includes 20 ft (6 m) cable		
Spoolmate™ 3545 Spool Gun	**#195 015**	Includes 20 ft (6 m) cable		
Spoolmatic® 30A Spool Gun	**#130 831**	Includes 30 ft (9 m) cable		
Spoolmate Controls				
SGA 100	**#043 856**	For Spoolmates		
SGA 100C	**#043 857**	For Spoolmates		
Spoolmate Consumables and Accessories				
Consumables		See page 3		
Spoolmate Curved Barrel Assembly	**#198 371**			
Spoolmate 9-in Straight Barrel Assembly	**#198 372**			
25 ft Extension Cable	**#194 996**			
Spoolmatic 30A Controls				
WC-24 Weld Control	**#137 549**	For Spoolmatic 30A		
WC-115A Weld Control	**#137 546** **#137 546-01-1**	Without contactor. For Spoolmatic 30A With contactor. For Spoolmatic 30A		
WC-115 Contactor Kit	**#137 548**	Field		
Spoolmatic 30A Consumables and Accessories				
Consumables		See page 4		
SX-A 50-Degree Curved Barrel	**#147 175** **#147 176**	6 in (152 mm) 10 in (254 mm)		
SX-A 50-Degree Curved Nozzle Kit	**#147 174**			
SX Flex Head Kit	**#131 104**			
3 in Head Tube Extension	**#137 787**			
Cable Cover	**#118 678**			
SX Heat Shield	**#131 103**			
Spare Spool Canister	**#132 230**			
Hose and Cable Extension Kits	**#132 228** **#132 229**	25 ft (7.6 m) 50 ft (15 m)		

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

Spool Guns and Controls

Spoolmate™ 3035, Spoolmate™ 3545, and Spoolmatic® 30A

Issued Dec. 2001 • Index No. M/1.5

Aluminum Wire Feeder

Quick Specs

Light and Heavy Industrial Applications
Aluminum Fabrication
Sign Manufacturing
Trailers
Auto and Marine Repair

Processes
MIG (GMAW) with aluminum and other soft alloy wires

Weight
Spoolmate 3035: 9 lb (4.1 kg) with cable assembly
Spoolmate 3545: 10 lb (4.5 kg) with cable assembly
Spoolmatic 30A: 14 lb (6.4 kg) with cable assembly

The Power of Blue®

Spoolmate™ 3035

These reliable yet economical Spoolmate spool guns **provide 20 ft cable reach and accessibility**, with **smooth feeding** of aluminum wire.

Spoolmatic® 30A

Industrial, well-balanced Spoolmatic 30A spool gun features a **built-in gas valve, rotatable canister, reversible drive roll and 30 ft cable reach.**

Spoolmate™ 3545

Selecting a Spool Gun

What wire sizes are you running?	What welding output?	Recommended gun
.023 – .035 in	150 A at 60% duty cycle — light industrial applications	Spoolmate 3035
.030 – .047 in	200 A at 60% duty cycle — light industrial applications	Spoolmate 3545
.023 – 1/16 in	200 A at 100% duty cycle — light and heavy industrial applications	Spoolmatic 30A

TRUE BLUE® WARRANTY

Spoolmate guns warranted for 90 days, parts and labor. Spoolmatic 30A gun warranted for 1 year, parts and labor.

Miller®

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

Specifications (Subject to change without notice.)

(Use with CC/CV, DC Power Sources.)

Spool Gun Specifications

Model	Welding Output Rating	Electrode Wire Diameter Capacity	Wire Speed	Maximum Spool Size Capacity	Dimensions	Net Weight with Cable Assembly
Spoolmate 3035	150 A at 60% Duty Cycle	.023–.035 in (0.6–0.9 mm) aluminum, steel and stainless steel	115–715 IPM	4 in (102 mm)	H: 11-1/2 in (291 mm) W: 2-1/4 in (57 mm) L: 8 in (203 mm)	9.1 lb (4.1 kg)
Spoolmate 3545	200 A at 60% Duty Cycle	.030–.047 in (0.8–1.2 mm) aluminum, steel and stainless steel	200–1200 IPM			10 lb (4.5 kg)
Spoolmatic 30A	200 A at 100% Duty Cycle	.023–1/16 in (0.6–1.6 mm) aluminum and hard wires up to .045 in (1.1 mm)	70–875 IPM		H: 10-1/4 in (260 mm) W: 2-1/2 in (64 mm) L: 15-1/8 in (384 mm)	14 lb (6.4 kg)

Spool Gun Control Specifications

Usage	Model	Input Power	Dimensions	Net Weight
For Spoolmate 3035 and 3545	SGA 100	115 VAC, 50/60 Hz	H: 4-1/4 in (108 mm) W: 6-3/8 in (162 mm) L: 10-1/2 in (267 mm)	9.1 lb (4.1 kg)
	SGA 100C	115 VAC, 50/60 Hz	H: 8-1/4 in (210 mm) W: 6-3/8 in (162 mm) L: 10-1/2 in (267 mm)	12 lb (5.4 kg)
For Spoolmatic 30A	WC-24	24 VAC, 50/60 Hz	H: 7 in (178 mm) W: 5-1/2 in (140 mm) L: 2 in (51 mm)	2 lb (0.9 kg)
	WC-115A	115 VAC, 50/60 or 100 Hz	H: 10 in (254 mm) W: 9-1/2 in (241 mm) L: 13 in (330 mm)	20 lb (9 kg)

Spool Gun Hook-Up Recommendations

Power Source	Effective Serial Number	Spoolmate 3035 #195 016 150 A, 60% Duty Cycle	Spoolmate 3545 #195 015 200 A, 60% Duty Cycle	Spoolmatic 30A #130 831 200 A, 60% Duty Cycle
Millermatic® 130 XP, 135	All	Limited to 14 gauge–1/8 in material SGA 100 required **#043 856**	Not recommended	Not recommended
Millermatic® Challenger 172, 175	All	SGA 100 required **#043 856**	Not recommended	Not recommended
Millermatic® 185	Prior to **#KH376829**	Retrofit Kit required **#186 871**	Retrofit Kit required **#186 871**	Not recommended
	After **#KH376829**	Direct hook-up with toggle switch	Direct hook-up with toggle switch	Not recommended
Millermatic® 210	All	Direct hook-up, Gun-On-Demand™	Direct hook-up, Gun-On-Demand™	Not recommended
Millermatic® Vintage, 250	All	Not recommended	SGA 100 required **#043 856**	Module required **#043 084**
Millermatic® 250X, 251	All	Not recommended	Not recommended	Direct hook-up

Spoolmate Spool Gun Controls

SGA 100 #043 856
Required to connect Spoolmate spool gun to the Millermatic 135 or 175. Allows you to connect a Spoolmate gun to virtually any similar MIG welder—Miller or other brands.

Includes 10 ft (3 m) 115 VAC power cable and plug, 6 ft (1.8 m) interconnecting cable, and 5 ft (1.5 m) gas hose.

Note: For CV engine drives like Miller Bobcat™, use the SGA 100C with contactor (#043 857).

SGA 100C #043 857
SGA with contactor required to connect Spoolmate spool gun to CV engine drives like Miller's Bobcat™.

Includes 10 ft (3 m) 115 VAC power cable and plug, 6 ft (1.8 m) interconnecting cable, and 5 ft (1.5 m) gas hose.

Genuine Miller Spoolmate Consumables and Accessories (Order Consumables from Miller Service Parts.)

Consumables For Spoolmate 3035

Contact Tips (5 per package)
#199 730 For .023 in (0.6 mm) wire.
#186 419 For .030 in (0.8 mm) wire.
#186 406 For .035 in (0.9 mm) wire.

Nozzle #186 405

Drive Roll (1)
#199 731 For .023 in (0.6 mm) wire.
#186 413 For .030/.035 in (0.8/0.9 mm) wire.

Push Roll (1)
#199 732 For .023 in (0.6 mm) wire.
#186 414 For .030/.035 in (0.8/0.9 mm) wire.

Consumables For Spoolmate 3545

Contact Tips (5 per package)
#199 387 For .030 in (0.8 mm) wire.
#199 388 For .035 in (0.9 mm) wire.
#199 389 For .047 in (1.2 mm) wire.

Nozzle #199 386

Drive Roll (1)
#186 413 For .030/.035 in (0.8/0.9 mm) wire.
#199 396 For .047 in (1.2 mm) wire.

Push Roll (1)
#186 414 For .030/.035 in (0.8/0.9 mm) wire.
#199 397 For .047 in (1.2 mm) wire.

Accessories

Note: When using with a Spoolmate 3545, ratings are reduced to 150A, 60% Duty Cycle.

Spoolmate™ Curved Barrel Assembly
#198 371

Spoolmate™ 9-in Straight Barrel Assembly
#198 372

25 ft Extension Cable #194 996

Spoolmatic 30A Spool Gun Controls

WC-24 Weld Control #137 549
Packaged in a compact, lightweight, non-metallic enclosure, the WC-24 easily mounts directly on the power source. It's designed for use with Miller CV power sources supplying 24 VAC and 14-pin receptacles. The control includes a board-mounted potentiometer which can alter the drive motor acceleration rate to optimize arc starting performance.

WC-115A Weld Control
#137 546 Without contactor
#137 546-01-1 With contactor
This control operates on 115 VAC, and is designed primarily for CC DC power sources. It can also be used with CV power sources or DC engine drives supplying 115 VAC. When used with a CC source, the control circuit functions in a voltage-sensing mode. When used with a CV source, it functions as a constant-speed circuit.

Standard features include a wire run-in control and a drive motor acceleration control which ensure optimum arc starting performance, regardless of the type of power source being used. The WC-115A comes with a 10 ft (3 m), wall-type plug power cord.

WC-115 Contactor Kit #137 548 Field Recommended when using the Spoolmatic gun and WC-115A control with power sources that do not have a weld output contactor. (This is installed in the WC-115A.)

Contactor Rating:
400 amps at 30% duty cycle
330 amps at 60% duty cycle
250 amps at 100% duty cycle

Genuine Miller Spoolmatic 30A Consumables (Order from Miller Service Parts.)

Contact Tips					Gun Head Tube Liner	Drive Rolls	
Wire Size	Standard	Tip I.D.	Optional	Tip I.D.		Dual Groove for All Wire Sizes (Supplied with Gun)	Dual Groove for One Wire Size (Optional)
.023 in (0.6 mm)	**#136 171**	.031 in (0.8 mm)	–	–	**#136 682**	**#136 135** (use small groove)	**#183 357** (.023 in / 0.6 mm)
.030 in (0.8 mm)	**#135 428**	.041 in (1.0 mm)	**#135 427**	.036 in (0.9 mm)	**#136 682**	**#136 135** (use small groove)	**#183 357** (.030 in / 0.8 mm)
.035 in (0.9 mm)	**#135 430**	.052 in (1.3 mm)	**#147 314**	.041 in (1.0 mm)	**#136 682**	**#136 135** (use small groove)	**#183 357** (.035 in / 0.9 mm)
.047 in (1.2 mm)	**#135 424**	.061 in (1.5 mm)	**#135 429**	.052 in (1.3 mm)	**#136 683**	**#136 135** (use large groove)	**#183 358** (.047 in / 1.2 mm)
.062 in (1.6 mm)	**#135 425**	.081 in (2.1 mm)	**#135 426**	.073 in (1.9 mm)	**#136 683**	**#136 135** (use large groove)	**#183 358** (.062 in / 1.6 mm)

Each gun is shipped with (3) .035 in and (3) .047 in standard tips. The optional contact tips listed are for those applications where a smaller I.D. tip is preferred. All contact tips are stamped with wire size and the tip I.D. For example: .035/52 designates .035 in wire and .052 in tip I.D.

Standard Nozzles

#050 622
5/8 in (16 mm) orifice (Standard with gun)

#050 116
13/16 in (21mm) orifice

#050 115
1/2 in (13 mm) orifice

Spot Nozzles

#009 925
Outside corner

#000 443
Inside corner

#000 442
Flat 15/16 in (24 mm) orifice

#004 466
Flat 1-3/8 in (35 mm) orifice

Contact Tip Conversion Kits

Note: Both kits include liners and contact tips for all wire sizes.

For Older-Style Spoolmatic Guns
#156 485
Allows older-style Spoolmatic guns to use the new Spoolmatic 30A 1-7/16 in (37 mm) long contact tips.

For Newer-Style Spoolmatic Guns
#164 603
Allows newer-style Spoolmatic guns to use the older-style Spoolmatic 4 in (102 mm) long contact tips.

Genuine Miller Spoolmatic 30A Accessories

SX-A 50-Degree Curved Barrel
#147 175 6 in (152 mm)
#147 176 10 in (254 mm)
Used with .030–1/16 in (0.8–1.6 mm) wire. Kits supplied with two liners that accommodate all wire sizes.

Note: Uses standard Spoolmatic contact tips. (Refer to Spoolmatic Gun Consumables chart for contact tips.)

SX-A 50-Degree Curved Nozzle Kit #147 174
Attaches to standard gun barrel assembly and is ideal for access to confined weld joint areas. Used with .030–1/16 in (0.8–1/6 mm) wire. Kit includes two of each size contact tips to accommodate all wire sizes. Uses standard straight barrel head tube liner.

SX Flex Head Kit #131 104
For .030–1/16 in (0.8–1.6 mm) wire. Used in place of the standard straight barrel. Flexible head tube bends 60 degrees in any direction for easier joint access and improved operator comfort. Supplied with two Teflon liners and one contact tip for each wire size listed.

3 in Head Tube Extension #137 787
Extends the standard gun barrel 3 in (72 mm) when a longer reach is required. The head tube extension is supplied with two liners to accommodate all wire sizes.

Note: Uses standard Spoolmatic contact tips. (Refer to Spoolmatic Gun Consumables chart for contact tips.)

Cable Cover #118 678
Protects gun hose and cable assembly from wear and abrasion. Features a full-length zipper.

SX Heat Shield #131 103
Helps protect operator's hand from spatter and reflected heat.

Spare Spool Canister #132 230
Canister accommodates 4 in (102 mm) spools of wire. Can be loaded with other popular wires to save time in changeover.

Hose and Cable Extension Kits
#132 228 25 ft (7.6 m)
#132 229 50 ft (15 m)
Extends Spoolmatic 30A away from the control box. Convenient plug-in connections. Includes gas hose, control cord, and weld power cable with International-style insulated connector.

Replacement Parts

Teflon Liners for Curved Barrels

For 6 in Barrel
#144 858 .030–.035 in (0.8–0.9 mm) wire
#144 859 .047–1/16 in (1.2–1.6 mm) wire

For 10 in Barrel
#144 854 .030–.035 in (0.8–0.9 mm) wire
#144 855 .047–1/16 in (1.2–1.6 mm) wire

Contact Tips for Curved Nozzle
#148 155 .030–.035 in (0.8–0.9 mm) wire
#148 154 .047 in (1.2 mm) wire
#148 156 1/16 in (1.6 mm) wire

Liners for Flex Head
#138 255 .030–.035 in (0.8–0.9 mm) wire
#132 682 .047–1/16 in (1.2–1.6 mm) wire

Liners for Head Tube Extension
#138 223 .030–.035 in (0.8–0.9 mm) wire
#138 224 .047–1/16 in (1.2–1.6 mm) wire

Typical Installations

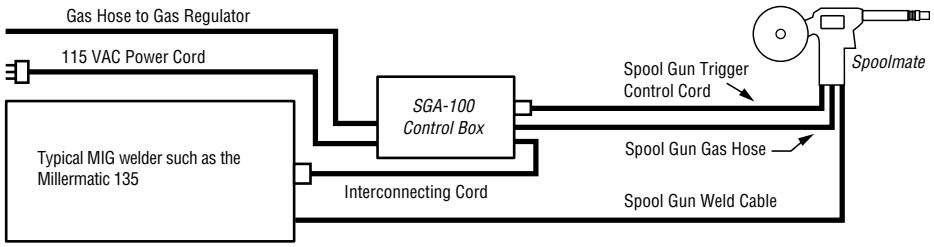
Spoolmate Gun to Welder Requiring a SGA Spool Gun Adapter

Note: Refer to SGA Owner's Manual for complete installation instructions.

For Millermatic 135, combine Spoolmate 3035 with SGA 100 to weld 14 gauge to 1/8 in aluminum.

For Millermatic 175, combine Spoolmate 3035 with SGA 100 to weld 14 gauge to 1/4 in aluminum.

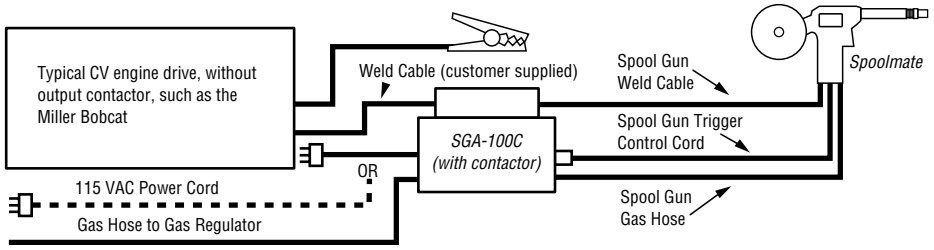
To weld aluminum with comparable, competitive power sources, the Spoolmate may also be used with one of the SGA units.


Gas Hose to Gas Regulator
115 VAC Power Cord
Typical MIG welder such as the Millermatic 135
SGA-100 Control Box
Interconnecting Cord
Spool Gun Trigger Control Cord
Spool Gun Gas Hose
Spool Gun Weld Cable
Spoolmate

The SGA 100C is necessary when connecting Spoolmate spool guns to CV engine drive units. Thickness will depend on engine drive.

For Miller's Bobcat 225NT, combine Spoolmate 3545 with SGA 100C to weld 14 gauge to 3/16 in aluminum.

To weld aluminum with comparable, competitive power sources, the Spoolmate may also be used with one of the SGA units.

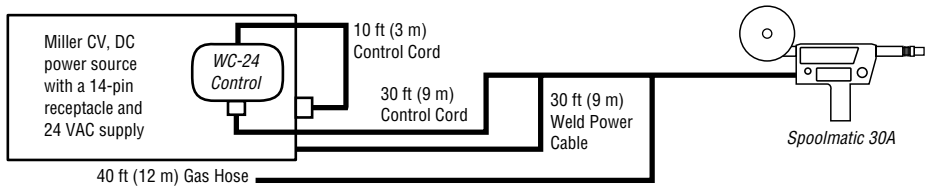

Typical CV engine drive, without output contactor, such as the Miller Bobcat
Weld Cable (customer supplied)
115 VAC Power Cord
Gas Hose to Gas Regulator
OR
SGA-100C (with contactor)
Spool Gun Weld Cable
Spool Gun Trigger Control Cord
Spool Gun Gas Hose
Spoolmate

Spoolmatic 30A

Note: Cords and cables are supplied unless noted otherwise on drawings below. Refer to Owner's Manual for complete installation instructions.

To connect the Spoolmatic 30A and WC-24 control to older-style Miller or competitive CV power sources that **do not** have a 24 VAC supply, the PSA-2 control **#141 604** is required.

To connect Spoolmatic 30A gun and WC-24 control to Millermatic® 200 and Spoolmate™ 200 power sources that have a 4-pin receptacle, order adapter cord **#042 236**.


Miller CV, DC power source with a 14-pin receptacle and 24 VAC supply
WC-24 Control
10 ft (3 m) Control Cord
30 ft (9 m) Control Cord
30 ft (9 m) Weld Power Cable
40 ft (12 m) Gas Hose
Spoolmatic 30A

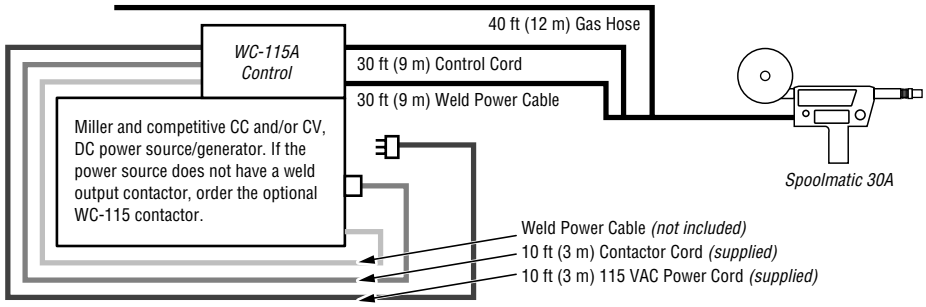
To connect the WC-115A control to older-style Miller power sources having Hubbell or 5-pin contactor control receptacles, the appropriate connector must be ordered **separately**:

To connect to older-style Miller CC power sources having a two-socket Hubbell connector, order plug **#039 618**.

If power source has a 5-pin receptacle, order **#039 273 and #039 685**.

To connect to older-style Miller CV power sources having a two-prong Hubbell connector, order plug **#039 635**.

Note: These connectors are to replace the 14-pin connector on the 10 ft interconnect contactor cord.


WC-115A Control
Miller and competitive CC and/or CV, DC power source/generator. If the power source does not have a weld output contactor, order the optional WC-115 contactor.
40 ft (12 m) Gas Hose
30 ft (9 m) Control Cord
30 ft (9 m) Weld Power Cable
Weld Power Cable (not included)
10 ft (3 m) Contactor Cord (supplied)
10 ft (3 m) 115 VAC Power Cord (supplied)
Spoolmatic 30A

Notes

Ordering Information

Equipment	Stock No.	Description	Qty.	Price
Spoolmate™ 3035 Spool Gun	**#195 016**	Includes 20 ft (6 m) cable		
Spoolmate™ 3545 Spool Gun	**#195 015**	Includes 20 ft (6 m) cable		
Spoolmatic® 30A Spool Gun	**#130 831**	Includes 30 ft (9 m) cable		
Spoolmate Controls				
SGA 100	**#043 856**	For Spoolmates		
SGA 100C	**#043 857**	For Spoolmates		
Spoolmate Consumables and Accessories				
Consumables		See page 3		
Spoolmate Curved Barrel Assembly	**#198 371**			
Spoolmate 9-in Straight Barrel Assembly	**#198 372**			
25 ft Extension Cable	**#194 996**			
Spoolmatic 30A Controls				
WC-24 Weld Control	**#137 549**	For Spoolmatic 30A		
WC-115A Weld Control	**#137 546** **#137 546-01-1**	Without contactor. For Spoolmatic 30A With contactor. For Spoolmatic 30A		
WC-115 Contactor Kit	**#137 548**	Field		
Spoolmatic 30A Consumables and Accessories				
Consumables		See page 4		
SX-A 50-Degree Curved Barrel	**#147 175** **#147 176**	6 in (152 mm) 10 in (254 mm)		
SX-A 50-Degree Curved Nozzle Kit	**#147 174**			
SX Flex Head Kit	**#131 104**			
3 in Head Tube Extension	**#137 787**			
Cable Cover	**#118 678**			
SX Heat Shield	**#131 103**			
Spare Spool Canister	**#132 230**			
Hose and Cable Extension Kits	**#132 228** **#132 229**	25 ft (7.6 m) 50 ft (15 m)		

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

ST 44 ULTRA-LITE

Dodavač žice konstantne brzine

Industrijske primjene	**Postupci**	**Ulaz**	24VAC, 3A, 50/60Hz
održavanje, reparatura	MIG/MAG	**Promjer žice**	0,6 – 2,0 mm
proizvodnja, brodogradnja	punjena žica	**Brzina žice**	0 – 20m/min
		Težina	15kg

The Power of Blue®

Standardni 14-pinski priključak Omogućava spajanje sa bilo kojim CV (konstantni napon) izvorom

Portable!

Težina od samo 15 kg i potpuno zatvoreni 4-rolni sklop dodavanja žice

Digitalni pokazivači pokazuju jasno i precizno očitavanje napona luka i brzine žice

2T/4T prekidač omogućava dvotaktni i četverotaktni rad

Daljinska regulacija napona omogućava preciznu daljinsku regulaciju napona luka izvora struje zavarivanja**

Brze spojnice za vodeno hlađenje*-brzo spajanje vodom hlađenog polikabela

Hladna dobava žice-omogućava pogon žice bez da je ista „energizirana“

Precizna kontrola protoka plina sa ugrađenim protokometrom osigurava točan protok plina

Industrijski 4-rolni pogonski kotačići Snažan motor sa pogonskim sklopom sa brzinom žice od 0-20m/min i za najzahtjevnije aplikacije; euro ili US priključak

Podesivo početak zavara i dužina slobodnog kraja žice za optimalni početak i završetak luka

TRUE BLUE® 3YR. WARRANTY

Brzo izmjenjivi dualni pogonski kotačići

*opcija

**Potreban je izvor struje koji ima daljinsku regulaciju napona

A.M.I.-COMMERCE LOVREKOVIĆ d.o.o.
Maksimirska 100 tel: 01-2300-333
10000 ZAGREB fax: 01-2300-222
web adresa
www.ami-lovrekovic.hr
www.tehnologija-zavarivanja.com

KARAKTERISTIKE

koristiti sa CV izvorima

Ulaz	Promjer žice	Brzina žice	Dimenzije	Težina
24 VAC, 3A, 50/60 Hz	0,6-2,0 mm	0 – 20 m/min	v=420mm š=220mm d=650mm	15kg

Miller

THE POWER OF BLUE

Zastupstvo i prodaja:

A.M.I.-COMMERCE LOVREKOVIĆ d.o.o.
Maksimirska 100 tel: 01-2300-333
10000 ZAGREB fax: 01-2300-222

web adresa
www.ami-lovrekovic.hr
www.tehnologija-zavarivanja.com

SuitCase™ 8RC and 12RC

Issued March 2003 • Index No. M/6.5

Wire Feeder with Remote Control

Quick Specs

Industrial Applications
Shipbuilding
Construction
Heavy Manufacturing
Rental

Processes
MIG (GMAW)
Flux Cored (FCAW)

Input Power 24 VAC, 7 A/10 A

Weight **8RC:** 22.0 lb (9.9 kg)
12RC: 25.5 lb (11.6 kg)

The Power of Blue®

New!

Remote voltage control — standard.

Standard gas solenoid controlling gas flow.

Totally enclosed, impact-resistant, flame-retardant case provides strength and durability, protecting components and weld wire from moisture, dust and contaminants.

Component assembly is easily removed for servicing.

Quick-change drive rolls are easy to change — no tools required.

Drive roll accessibility makes it easy to install wire, adjust tension and change drive rolls.

Versatile feeders can run wire diameters up to 5/64 in (2.0 mm).

Gas purge purges gas line without feeding wire, or energizing weld wire with OCV.

Thermal overload protection protects motor and control circuit against possible damage due to overloading conditions, or loose cable connections.

Digital meter option available for wirefeed speed or voltage display.

Specifications (Subject to change without notice.)

CC CV DC *(Use with CC/CV, DC Power Sources.)*

Model	Input Power	Welding Power Source Type	Input Welding Circuit Rating	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity	Wire Speed	Dimensions	Net Weight
8RC	24 VAC, 7 A, 50/60 Hz	Constant Voltage (CV)	500 A at 100% Duty Cycle	Solid Wire: .023–5/64 in (0.6–2.0 mm) Flux Cored: .030–5/64 in (0.8–2.0 mm)	8 in (203 mm) 14 lb (6.4 kg)	75–700 IPM (1.9–17.7 m/min)	H: 14-1/2 in (368 mm) W: 6-1/2 in (165 mm) D: 15-5/8 in (397 mm)	22 lb (9.9 kg)
12RC	24 VAC, 10 A, 50/60 Hz			Solid Wire: .023–5/64 in (0.6–2.0 mm) Flux Cored: .030–5/64 in (0.8–2.0 mm)	12 in (305 mm) Up to 44 lb (20 kg)		H: 16 in (406 mm) W: 7-1/4 in (184 mm) D: 20 in (508 mm)	25.5 lb (11.6 kg)

TRUE BLUE® 3YR. WARRANTY

Wire feeder is warranted for 3 years, parts and labor.

MADE IN USA
APPLETON, WI

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

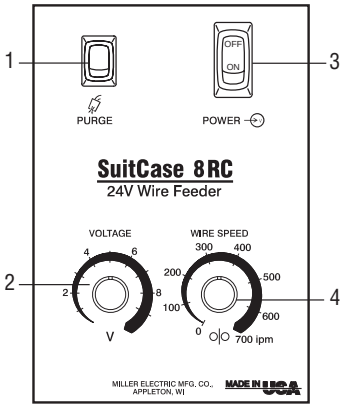
ISO 9001:2000 REGISTERED QUALITY SYSTEM

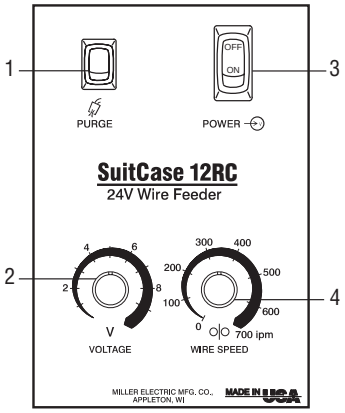
Drive Roll Kits (1 kit required, order from Miller Service Parts.)

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include 2 drive rolls, the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft- shelled cored wires (i.e., hard facing types)
.023/.025 in (0.6 mm)	**#087 131**	—	—	—
.030 in (0.8 mm)	**#079 594**	—	—	—
.035 in (0.9 mm)	**#079 595**	**#044 749**	**#079 606**	—
.040 in (1.0 mm)	**#161 189**	—	—	—
.045 in (1.1/1.2 mm)	**#079 596**	**#079 599**	**#079 607**	**#083 318**
.052 in (1.3/1.4 mm)	**#079 597**	**#079 600**	**#079 608**	**#083 317**
1/16 in (1.6 mm)	**#079 598**	**#079 601**	**#079 609**	**#079 614**
.068/.072 in (1.8 mm)	—	—	**#089 984**	—
5/64 in (2.0 mm)	—	**#079 602**	**#079 610**	**#079 615**

Control Panels





1. Purge Switch
2. Voltage Control
3. Power Control Switch
4. Wire Speed Control

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
SuitCase™ 8RC *(Remote Extension Cord required.)*	**#194 938** **#194 938-01-1** **#194 938-03-1**	With remote voltage With meters, remote voltage, and trigger hold With **CE**, meters, remote voltage, and trigger hold		
Meter Kit	**#195 165**	Field. For SuitCase 8RC		
SuitCase™ 12RC *(Remote Extension Cord required.)*	**#194 940** **#194 940-01-1** **#194 940-03-1**	With remote voltage With meters, remote voltage, and trigger hold With **CE**, meters, remote voltage, and trigger hold		
Meter Kit	**#195 169**	Field. For SuitCase 12RC		
Accessories				
Remote Extension Cords *(One required.)*	**#122 973** **#122 974** **#122 975**	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.9 m)		
Volt/Current Sensor Kit	**#195 194**	Field. For both SuitCase 8RC and 12RC. Required for digital meter operation with power sources not having pins F and H in the 14-pin receptacle. *(PipePro 304 is the only Miller engine drive with pins F and H.)*		
Flowmeter Kit	**#195 217**	Field. For both SuitCase 8RC and 12RC		
Shielding Gas Filter	**#195 189**	Field. For both SuitCase 8RC and 12RC		
Guns				
Ironmate™ 1260		Flux cored (FCAW) gun. See Lit. Index No. AY/16.0		
Roughneck® C-Series		MIG (GMAW) gun. See Lit. Index No. AY/17.0		
Power Sources				
XMT® 304		See Lit. Index No. DC/18.8		
Dimension™		See Lit. Index No. DC/19.2		
Invision™ MP		See Lit. Index No. DC/23		
Mark VI™		See Lit. Index No. DC/9.8		
Big Blue® 600D		See Lit. Index No. DC/10.3		
Big Blue® 402		See Lit. Index No. DC/10.8		
Big Blue® Air Pak™		See Lit. Index No. DC/10.5		
PipePro™		See Lit. Index No. ED/10.6		
Trailblazer®		See Lit. Index No. DC/4.5		
Consumables				
Drive Rolls/Wire				

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

SuitCase™ 8VS and 12VS

Issued Sept. 2002 • Index No. M/6.4

Voltage-Sensing Wire Feeder

Quick Specs

Industrial Applications
Shipbuilding
Construction
Heavy Manufacturing
Rental

Processes
MIG (GMAW)
Flux Cored (FCAW)

Input Power 15–100 VDC

Weight **8VS** 23.5 lb (10.7 kg)
12VS 28.5 lb (12.9 kg)

The Power of Blue®

Carrying handle folds down out of way, yet is large enough for a gloved hand.

Quick-connect sense lead disconnects if pulled excessively—prevents damage to internal components.

Standard contactor and gas solenoid control OCV and gas flow.

Totally enclosed, impact-resistant, flame-retardant case provides strength and durability, protecting components and weld wire from moisture, dust and contaminants.

Operates on open-circuit or arc voltages, eliminating the need for a power supply cord between the power source and feeder.

Component assembly is easily removed for servicing.

Ergonomically sound, lightweight unit is well balanced, for ease of carrying to remote welding sites.

Quick-change drive rolls are easy to change—no tools required.

Drive roll accessibility makes it easy to install wire, adjust tension and change drive rolls.

Versatile feeder can run wire diameters up to .062 in for the 8VS and up to 5/64 in for the 12VS.

Simple control panel eliminates operator confusion.

Gas purge purges gas line without feeding wire, or energizing weld wire with OCV.

Overload protection protects motor and control circuit against possible damage due to overloading conditions.

Universal feeder operates with most Miller and competitive CV/CC DC power sources.

Specifications (Subject to change without notice.)

CC CV DC *(Use with CC/CV, DC Power Sources.)*

Model	Input Power	Welding Power Source Type	Input Welding Circuit Rating	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity	Wire Speed	Dimensions	Net Weight
8VS	Open-Circuit Arc Voltage 15–100 VDC	Constant Voltage (CV) or Constant Current (CC) DC	330 A at 60% Duty Cycle w/ Secondary Contactor	Solid Wire: .023–.062 in (0.6–1.6 mm) Flux Cored: .030–.062 in (0.8–1.3 mm)	8 in (203 mm) 14 lb (6.4 kg)	50–700 IPM (1.3–18 m/min) dependent on arc voltage	H: 14-1/2 in (368 mm) W: 6-1/2 in (165 mm) D: 15-5/8 in (397 mm)	23.5 lb (10.7 kg)
12VS				Solid Wire: .023–5/64 in (0.6–2.0 mm) Flux Cored: .030–5/64 in (0.8–2.0 mm)	12 in (305 mm) Up to 44 lb (20 kg)		H: 16 in (406 mm) W: 7-1/4 in (184 mm) D: 20 in (508 mm)	28.5 lb (12.9 kg)

TRUE BLUE® 3YR. WARRANTY

Wire feeder is warranted for 3 years, parts and labor.

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APPLETON, WI

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Web Site
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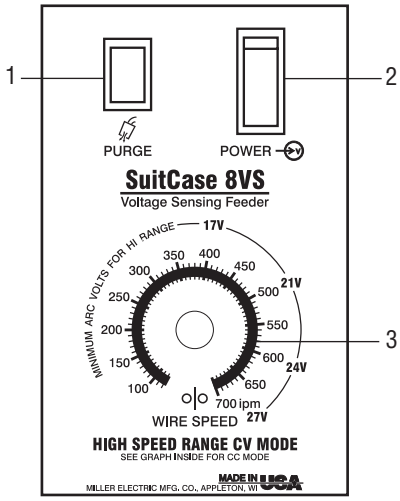
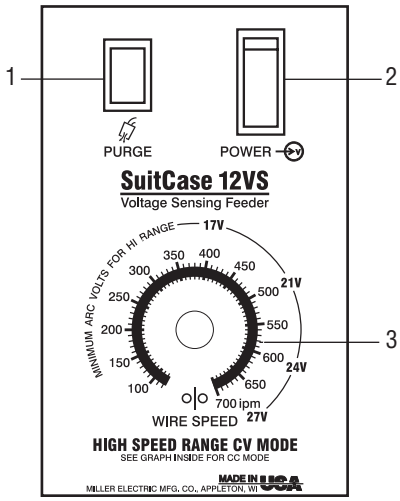
ISO 9001:2000 REGISTERED QUALITY SYSTEM

Control Panels





1. Purge Switch
2. Power Control Switch
3. Wire Speed Control

Drive Roll Kits (Order from Miller Service Parts.)

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include 2 drive rolls, the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft- shelled cored wires (i.e., hard facing types)
.023 / .025 in (0.6 mm)	#087 131	—	—	—
.030 in (0.8 mm)	#079 594	—	—	—
.035 in (0.9 mm)	#079 595	#044 749	#079 606	—
.040 in (1.0 mm)	#161 189	—	—	—
.045 in (1.1/1.2 mm)	#079 596	#079 599	#079 607	#083 318
.052 in (1.3/1.4 mm)	#079 597	#079 600	#079 608	#083 317
1/16 in (1.6 mm)	#079 598	#079 601	#079 609	#079 614
.068/.072 in (1.8 mm)	—	—	#089 984	—
5/64 in (2.0 mm)	—	#079 602	#079 610	#079 615

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
SuitCase 8VS™	#194 890			
	#194 890-01-1	With trigger hold		
	#194 890-01-2	With **CE** and trigger hold		
	#194 890-01-3	With meters (factory)		
	#194 890-02-1	With meters and trigger hold		
Conversion Kit	#195 029	Meters (field)		
SuitCase 12VS™	#194 941			
	#194 941-01-1	With trigger hold		
	#194 941-01-2	With meters (factory)		
	#194 941-02-2	With meters and trigger hold		
Conversion Kit	#195 167	Meters (field)		
Guns				
Ironmate™ 1260 (FCAW)		See Lit. Index No. AY/16.0		
Roughneck® C-Series (GMAW)		See Lit. Index No. AY/17.0		
Power Sources				
XMT® 304		See Lit. Index No. DC/18.8		
Dimension™		See Lit. Index No. DC/19.2		
Gold Star®		See Lit. Index No. DC/8.1		
Mark VI™		See Lit. Index No. DC/9.8		
Big Blue® 251D		See Lit. Index No. ED/5.2		
Big Blue® 600D		See Lit. Index No. DC/10.3		
Big Blue® 402		See Lit. Index No. DC/10.8		
Big Blue® Air Pak™		See Lit. Index No. DC/10.5		
Bobcat™		See Lit. Index No. DC/4.31		
Trailblazer®		See Lit. Index No. DC/4.5		
Consumables				
Drive Rolls				
Wire				

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

SuitCase™ X-TREME™ 12VS

Izdanje travanj 2005 • Index No. M/6.41

Naponsko-osjetljivi dodavač žice

Brza spec.

Industrijske primjene
- Brodogradnja
- Konstrukcije
- Teška proizvodnja
- Rental

Postupci
- MIG (GMAW)
- Punjene žice (FCAW)

Ulaz: 14 – 48 VDC radni napon
110 VDC Maximum napon praznog hoda

Brzina žice 50 – 780 IPM (1.3 – 19.8 m/min)

Težina: 35 lb (15.9 kg)

The Power of Blue®

NOVO! Polipropilen kučište sa ugrađenim kliznim šinama i mogućnošću otvaranja vrata za izmjenu žice sa dodavačem u vertikalnom položaju.

Digitalni pokazivači sa SunVision™ tehnologijom za prikaz napona i brzine žice, te također prikaz jačine struje ukoliko se želi. Display ima jasan prikaz i na direktnoj sunčevoj svjetlosti.

Izmjenjiva i klizna glavna elektronička upravljačka za najzahtjevnija okruženja daje izuzetnu pouzdanost. Ploča ima punu izolaciju prekidača tako da kratki spoj prekidača neće ometati rad dodavača.

Poboljšani kontaktor i opća intermitencija za visoko strujne aplikacije (425 A uz 60%).

Taktovi prekidača, hladna dobava žice i protok plina su standardni i smješteni na prednjem panelu.

Širi opseg napona za male i velike žice bez promjene kontaktora ili promjena luka.

NOVO! Duplo-filtrirani plinski ventil pomaže da nečistoće ne utječu na protok plina.

Odličan start i poboljšane superiorne osobine luka za sve vrste i veličine žica bez obzira koristi li se CV ili CC izvor struje. Najbolji završni CC luk u industriji.

Specifikacija

CC/CV DC *(Sa CC/CV, DC izvorima struje.)*

Ulazni napon	Izvor struje zavarivanja	Opterećenje	Promjer žice	Veličina koluta	Brzina žice	Dimenzije	Net težina
Radni napon: 14 – 48 VDC Max NPH: 110 VDC	CC ili CV DC izvori struje. AC tip se ne preporučuje.	425 A uz 60% intermit.	Puna žica: .023 – 5/64 in (0.6 – 2.0 mm) Punjena žica: (0.8 – 2.0 mm)	12 in (305 mm) Sve do 45 lb (20.4 kg)	50 – 780 IPM (1.3 – 19.8 m/min) zavisno od napona luka	H: 21 in (533 mm) W: 9 in (229 mm) D: 15-1/2 in (394 mm)	35 lb (15.9 kg)

TRUE BLUE® 3YR. WARRANTY

Dodavač žice ima garanciju od 3 (tri) godine.

MADE IN USA
APPLETON, WI

Miller®

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
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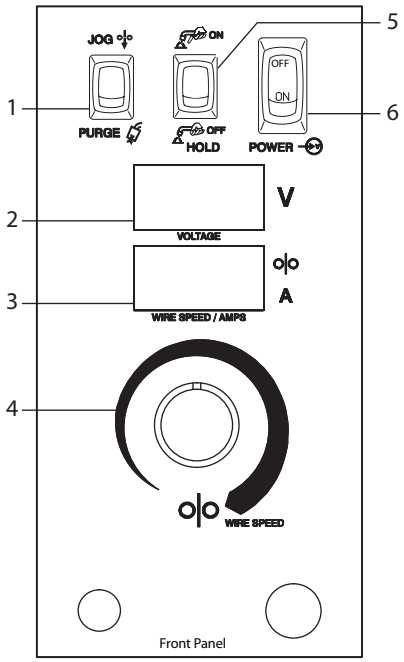
Canadian FAX: 920-735-4169
International FAX 920-735-4125

Web Site
www.MillerWelds.com

ISO 9001:2000 REGISTERED QUALITY SYSTEM

A.M.I.-Commerce, d.o.o.
Maksimirska 100
10000 Zagreb
tel:01/2300-333; fax:01/2300-222

Upravljački panel



1. Prekidač hladne dobave/protok plina
2. Voltmetar
3. Brzina žice/Pokazivač struje
4. Kontrola brzine žice
5. Prekidač za taktove prekidača
6. Glavni prekidač

Pogonski kotači - kompleti

Odrediti pogonske kotačiće prema donjoj tablici. Kompleti pogonskih kotačića uključuju 2 pogonska kotačića , potrebne vodilice .

Veličina žice	"V" žlijeb za tvrdu žicu	"U" žlijeb za meku žicu ili mekše punjene žice	"V" žlijeb za tvrdo obložene punjene žice	"U" nazubljene za extremno meke žice ili meke punjene žice (i.e., žice za tvrdo navarivanje)
.023 /.025 in (0.6 mm)	#087 131	—	—	—
.030 in (0.8 mm)	#079 594	—	—	—
.035 in (0.9 mm)	#079 595	#044 749	#079 606	—
.040 in (1.0 mm)	#161 189	—	—	—
.045 in (1.1/1.2 mm)	#079 596	#079 599	#079 607	#083 318
.052 in (1.3/1.4 mm)	#079 597	#079 600	#079 608	#083 317
1/16 in (1.6 mm)	#079 598	#079 601	#079 609	#079 614
.068/.072 in (1.8 mm)	—	—	#089 984	—
5/64 in (2.0 mm)	—	#079 602	#079 610	#079 615

Informacije za narudžbu

Izvor struje i opcije	art.br.	Opis	Kol.	Cijena
SuitCase™ X-TREME™ 12VS	#195 500			
Flowmeter Kit	#195 217			
Inline Filter	#195 189			
Lincoln® Spool Adapter	#047 141	For 14 lb spools		
Gorionici				
Ironmate™ 1260 (FCAW)		See Lit. Index No. AY/16.0		
Roughneck® C-Series (GMAW)		See Lit. Index No. AY/17.0		
Izvori struje				
XMT® Series		See Lit. Index No. DC/18.8		
Dimension™		See Lit. Index No. DC/19.2		
Gold Star®		See Lit. Index No. DC/8.1		
Mark VI™		See Lit. Index No. DC/9.8		
Big Blue® Turbo		See Lit. Index No. ED/10.3		
Big Blue® 400 & 500		See Lit. Index No. ED/10.8		
Big Blue® Air Pak™		See Lit. Index No. ED/10.5		
Bobcat™		See Lit. Index No. ED/4.4		
Trailblazer®		See Lit. Index No. ED/4.77		
Potrošni dijelovi				
Drive Rolls				
Wire				

Datum: Ukupna cijena:

Miller®

Zastupstvo i prodaja: A.M.I.-COMMERCE LOVREKOVIĆ, d.o.o.
Maksimirska 100
10000 Zagreb
tel: 01/2300-333
fax: 01/2300-222
e-mail: ami-lovrekovic@zg.htnet.hr
www.ami-lovrekovic.hr
www.tehnologija-zavarivanja.com

Litho in USA

70 Series Swingarc™

Issued Dec. 2001 • Index No. M/13.1

Boom-Mounted Wire Feeder

Quick Specs

Heavy Industrial Applications
Heavy Manufacturing
Metal Fabrication
Construction
Light Manufacturing

Processes
MIG (GMAW)
Flux Cored (FCAW)
(Gas- and Self-Shielded)
Submerged Arc (SAW)

Input Power 24 VAC, 10 A, 50/60 Hz
Electrode Wire Diameter Capacity .023–1/8 in (0.6–3.2 mm)
Wire Speed 50–780 IPM (1.3–19.8 m/min)
Weight 160–280 lb (73–127 kg) depending upon feeder and boom

The Power of Blue®

Available in single- and dual-wire models with 12 or 16 ft booms to accommodate a wide variety of semiautomatic wire feed applications, including large weldments and hard to reach areas.

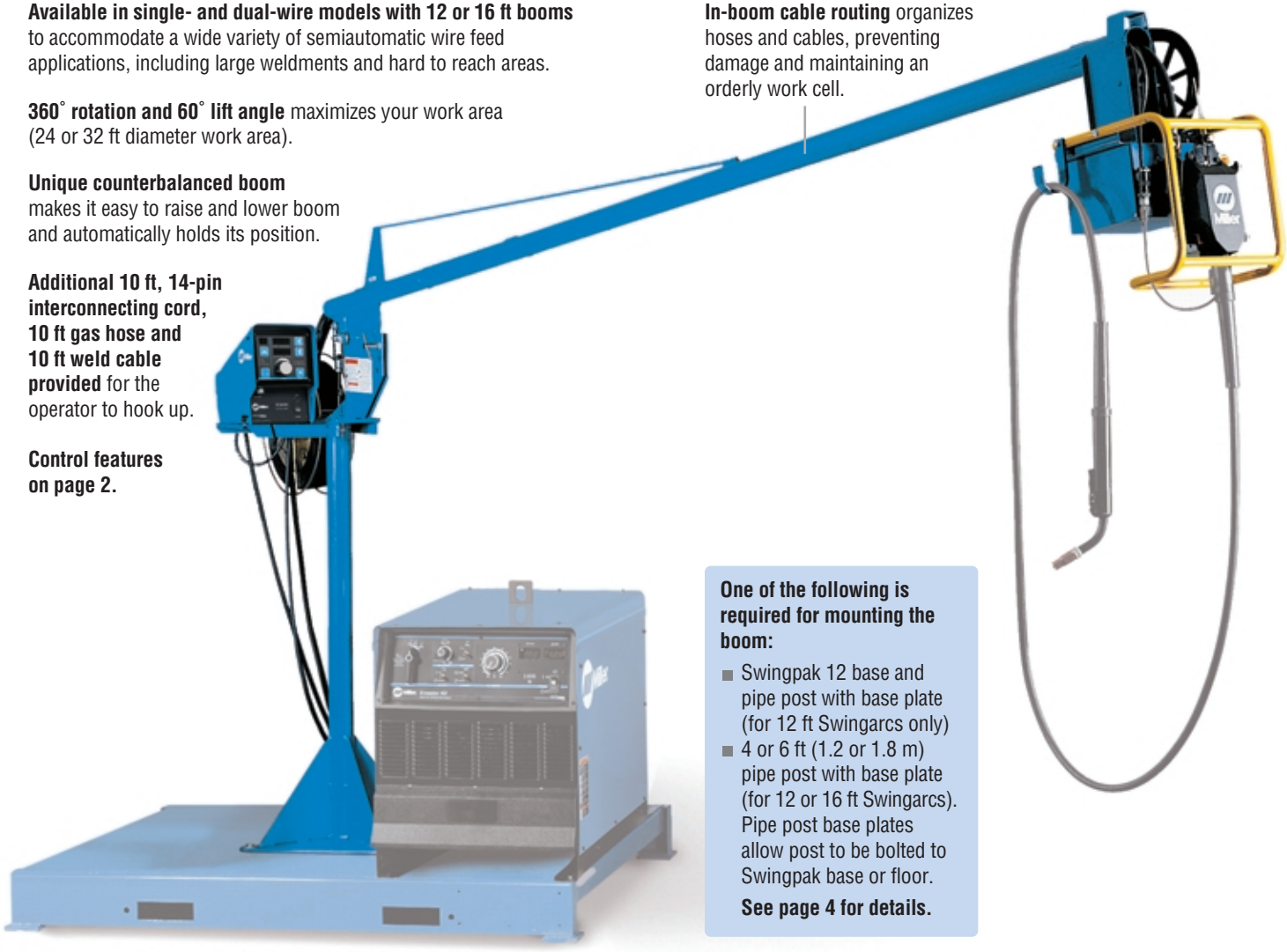
360° rotation and 60° lift angle maximizes your work area (24 or 32 ft diameter work area).

Unique counterbalanced boom makes it easy to raise and lower boom and automatically holds its position.

Additional 10 ft, 14-pin interconnecting cord, 10 ft gas hose and 10 ft weld cable provided for the operator to hook up.

Control features on page 2.

In-boom cable routing organizes hoses and cables, preventing damage and maintaining an orderly work cell.



Single-wire Swingarc shown with pipe post, power source, welding gun, and optional Swingpak™ 12 base.

One of the following is required for mounting the boom:

- Swingpak 12 base and pipe post with base plate (for 12 ft Swingarcs only)
- 4 or 6 ft (1.2 or 1.8 m) pipe post with base plate (for 12 or 16 ft Swingarcs). Pipe post base plates allow post to be bolted to Swingpak base or floor.

See page 4 for details.

TRUE BLUE® 3 YR. WARRANTY

Wire feeder and boom are warranted for 3 years, parts and labor.

MADE IN USA
APPLETON, WI

Miller®

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Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
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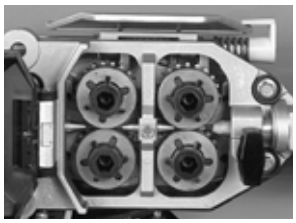
ISO 9001 REGISTERED QUALITY SYSTEM

70 Series Control Features

The next generation of industrial-class wire feeders. All the features of the 60 Series controls, plus enhanced flexibility and additional features.

Models: 74S: Standard, basic design
74D: Digital meters
74DX: Deluxe—digital, full-feature



Dual tension control adds flexibility for the operator to fine-tune the pressure on the wire independently when feeding a variety of wires.

Trigger receptacle oriented in a downward position to reduce potential damage.

Trigger hold reduces operator fatigue by allowing the operator to make long welds without having to energize the trigger continuously.

Automatic run-in control significantly improves arc starting performance.

10 ft, 14-pin interconnecting cord, 10 ft gas hose and 10 ft weld cable provided for the operator to hook up.

Posifeed™ Wire Drive Assembly Features

- 24 VDC high-torque, permanent-magnet motor.
- Quick-change drive rolls.
- Quick-release, calibrated drive-roll pressure adjustment arm allows drive roll change without losing spring preload setting.
- **Four sealed ball bearing all-gear-driven drive-roll carriers** for smooth, positive and accurate wire feed with long uninterrupted service life.
- Easy loading and threading of welding wire without having to release the drive-roll pressure arm.
- **Solid-state speed control and brake circuit** eliminates the need for electrical/ mechanical relays and increases service life.
- Uses Miller standard 1-5/8 in (41 mm) diameter drive rolls.
- Quick-connect for all Miller guns.
- Covered drive rolls—easy access, heavy-duty, molded composite cover over drive assembly.
- Floating positive drive systems provide trouble-free feeding on a variety of wires.

DX Models Additional Features

Dual schedule allows operator to switch between two welding parameters without readjusting machine, eliminating downtime and enhancing quality.

Adjustable weld sequence control gives operator complete control of the welding parameters: preflow, run-in, weld time, crater, burnback and postflow.

Welding process range control locks parameters at a set percentage of welding parameters to ensure welding procedures and quality standards are maintained on the shop floor.

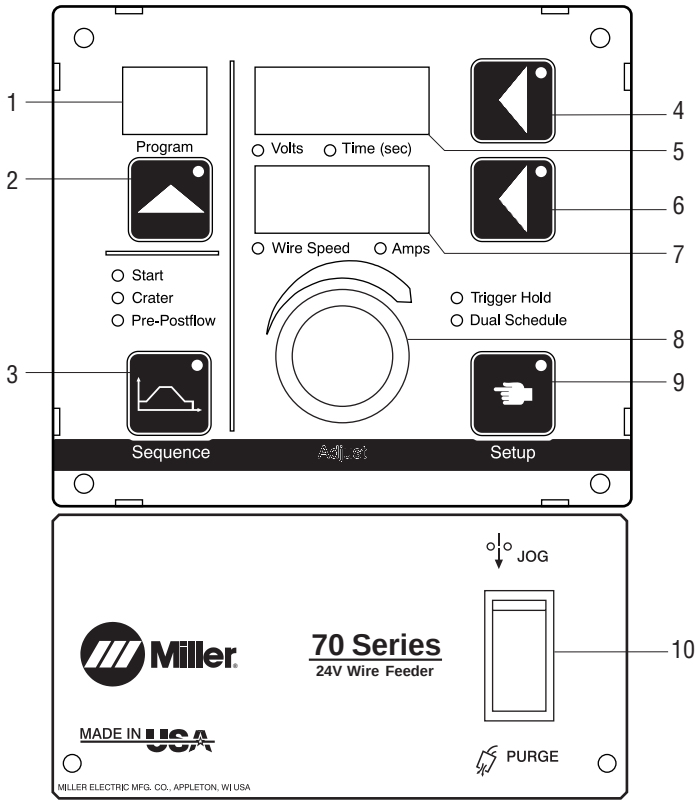
Four weld programs allow the operators to store four independent welding parameters reducing welding setup time. (Four programs available per side on dual model.)

Specifications (Subject to change without notice.)

CV *(Use with CV Power Sources.)*

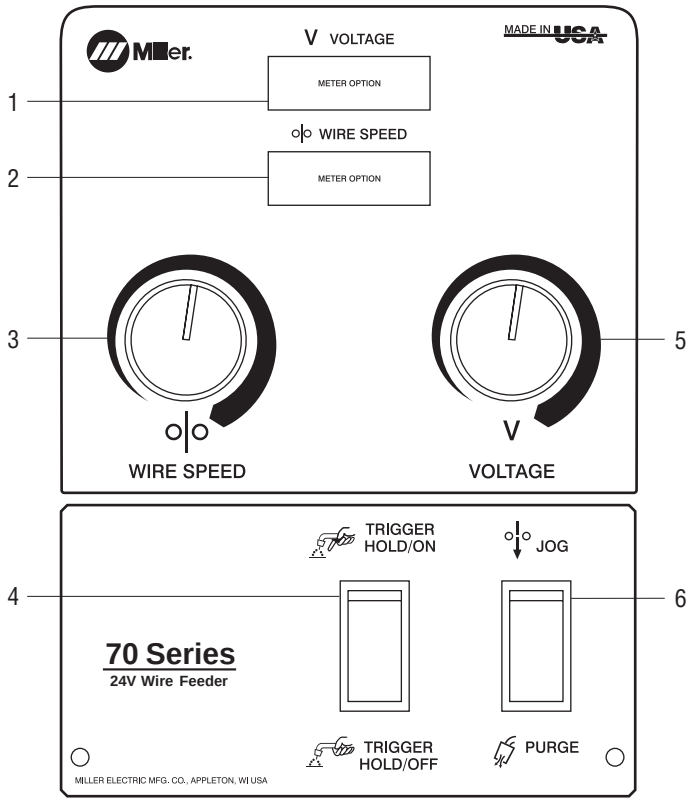
Model	Input Power	Electrode Wire Diameter Capacity	Wire Speed	12 ft Boom Net Weight	16 ft Boom Net Weight
SS-74	24 VAC, 10 A, 50/60 Hz	.023–1/8 in (0.6–3.2 mm) (1/8 in wires may require low-speed motor)	50–780 IPM (1.3–19.8 m/min) Optional High Speed Motor: 90–1440 IPM (2.3–36.6 m/min)	160 lb (73 kg)	210 lb (95 kg)
DS-74				207 lb (94 kg)	280 lb (127 kg)

Control Panels



S-74DX Model

1. Program Display
2. Program # Select
3. Weld Sequence
4. Voltage/Time Select
5. Voltage/Time Display Meter
6. Wire Feed/Amperage Select
7. Wire Speed/Amperage Display Meter
8. Control Knob
9. Trigger Hold/Dual Schedule Control
10. Jog/Purge



S-74S and S-74D Model

1. Voltage Display Meter*
2. Wire Speed Display Meter*
3. Wire Feed Speed Select
4. Trigger Hold
5. Voltage Select
6. Jog/Purge

S-74D model only

Drive Roll Kits and Guides (Order from Miller Service Parts.)

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include 4 drive rolls, the necessary guides and feature an anti-wear sleeve for inlet guide.

Wire Size	"V" groove for hard wire	"U" groove for soft wire or soft-shelled cored wires	"V" knurled for hard-shelled cored wires	"U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)
.023/.025 in (0.6 mm)	#151 024	—	—	—
.030 in (0.8 mm)	#151 025	—	—	—
.035 in (0.9 mm)	#151 026	#151 036	#151 052	—
.040 in (1.0 mm)	#161 190	—	—	—
.045 in (1.1/1.2 mm)	#151 027	#151 037*	#151 053	#151 070
.052 in (1.3/1.4 mm)	#151 028	#151 038	#151 054	#151 071
1/16 in (1.6 mm)	#151 029	#151 039	#151 055	#151 072
.068/.072 in (1.8 mm)	—	—	#151 056	—
5/64 in (2.0 mm)	—	#151 040	#151 057	#151 073
3/32 in (2.4 mm)	—	#151 041	#151 058	#151 074
7/64 in (2.8 mm)	—	#151 042	#151 059	#151 075
1/8 in (3.2 mm)	—	#151 043**	#151 060**	#151 076**

Accommodates .045 and .047 (3/64 in) wire.* * May require a low-speed, wire-feed drive-roll option.*

Nylon Wire Guides for Feeding Aluminum Wire

Wire Size	Inlet Guide	Intermediate Guide
.047 in (1.2 mm)	#151 203	#151 204
1/16 in (1.6 mm)	#151 205	#151 206
3/32 in (2.4 mm)	#151 207	#151 208

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023–.040 in (0.6–1.0 mm)	#150 993	#149 518
.045–.052 in (1.1–1.4 mm)	#150 994	#149 519
1/16–5/64 in (1.6–2 mm)	#150 995	#149 520
3/32–7/64 in (2.4–2.8 mm)	#150 996	#149 521
1/8 in (3.2 mm)	#150 997	#149 522

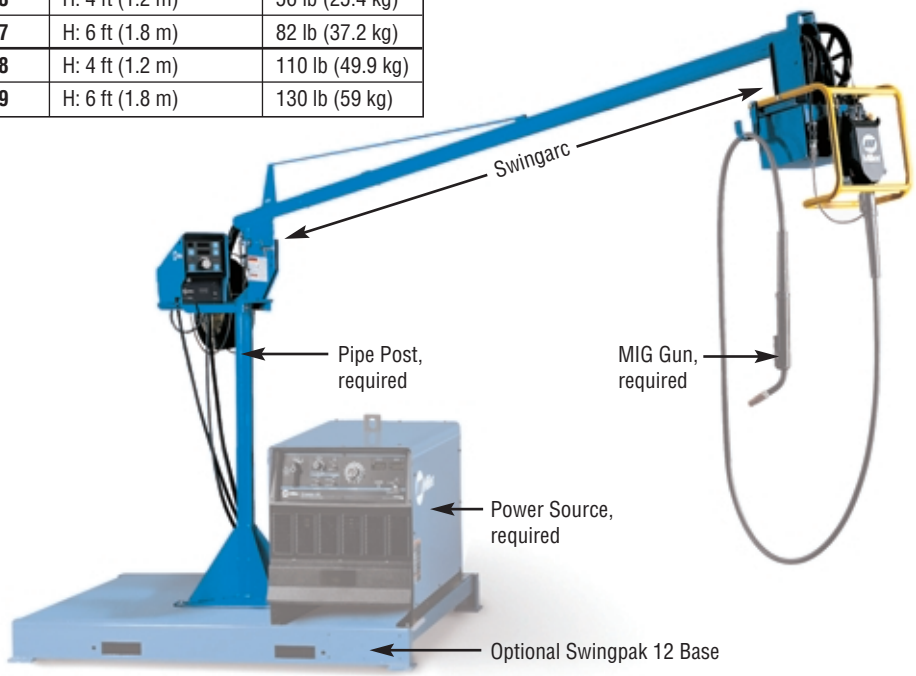
Mounting Equipment for Swingarc™ Booms

Specifications and Usage (Subject to change without notice.)

Usage	Model	Stock No.	Dimensions	Net Weight
For 12 ft Swingarc only	Swingpak 12 Base	#183 997	L: 65 in (1.7 m) W: 50-7/8 in (1.3 m)	285 lb (129 kg)
	4 ft Pipe Post w/o Base	#075 078	H: 4 ft (1.2 m)	56 lb (25.4 kg)
	6 ft Pipe Post w/o Base	#079 217	H: 6 ft (1.8 m)	82 lb (37.2 kg)
For 12 or 16 ft Swingarc	4 ft Pipe Post with Base	#149 838	H: 4 ft (1.2 m)	110 lb (49.9 kg)
	6 ft Pipe Post with Base	#149 839	H: 6 ft (1.8 m)	130 lb (59 kg)

The Swingpak™ 12 Base

For use with 12 ft (3.7 m) Swingarc only. Each base accommodates a power source, 12 ft Swingarc feeder system, water coolant system, and gas cylinder. The base plate is solid to help better organize components and cables. The entire unit can be moved with a forklift truck.

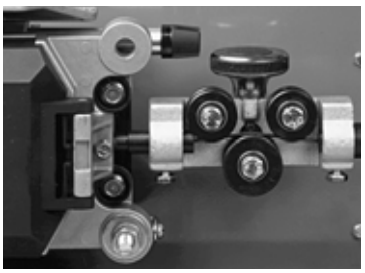


Genuine Miller Options and Accessories

Remote Voltage Control
#194 988 Field Non-digital for S-74S
#194 991 Field Non-digital for D-74S

Conversion Kit
#194 989 Field S-74S to S-74D
#194 992 Field D-74S to D-74D
#195 010 Field S-74S to S-74DX
#195 041 Field D-74S to D-74DX

Control Detachment Kit
#194 914 Field 10 ft (3 m) for S-74S
#194 913 Field 25 ft (7.6 m) for S-74S
#194 995 Field 25 ft (7.6 m) for D-74S
Allows separation of the control module from the wire drive assembly and base.



Wire Straightener
#141 580 For .035–.045 in (0.9–1.1 mm) diameter wire.
#141 581 For 1/16–1/8 in (1.6–3.2 mm) diameter wire.
Helps reduce the cast in wire to improve wire feeding performance and increase the service life of the gun liner and contact tip.

Spool Covers
#057 607 For S-74 and left side of D-74 models
#090 389 For right side of D-74 models
For 12 in (305 mm) spool.

Wire Reel Assembly #108 008
For 60 lb (27 kg) coil of wire.

Reel Covers
#058 256 For S-74 and left side of D-74 models
#091 668 For right side of D-74 models
For 60 lb (27 kg) coil. Helps to protect the welding wire from dust and other contaminants.
Note: Reel and Spool Covers cannot be installed if the wire drive assembly is in a rotated position.

Spool Adapter #047 141
For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

2/0 MIG Welding Accessory Kit #173 856
25 ft (7.6 m). Includes gas hose, weld cable and ground cable with clamp.

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15 m)
#122 975 75 ft (23 m)
Provides 14-pin, 24 VAC, contactor and voltage control. Add to the standard 10 ft (3 m) feeder cord to extend feeder farther from power source.

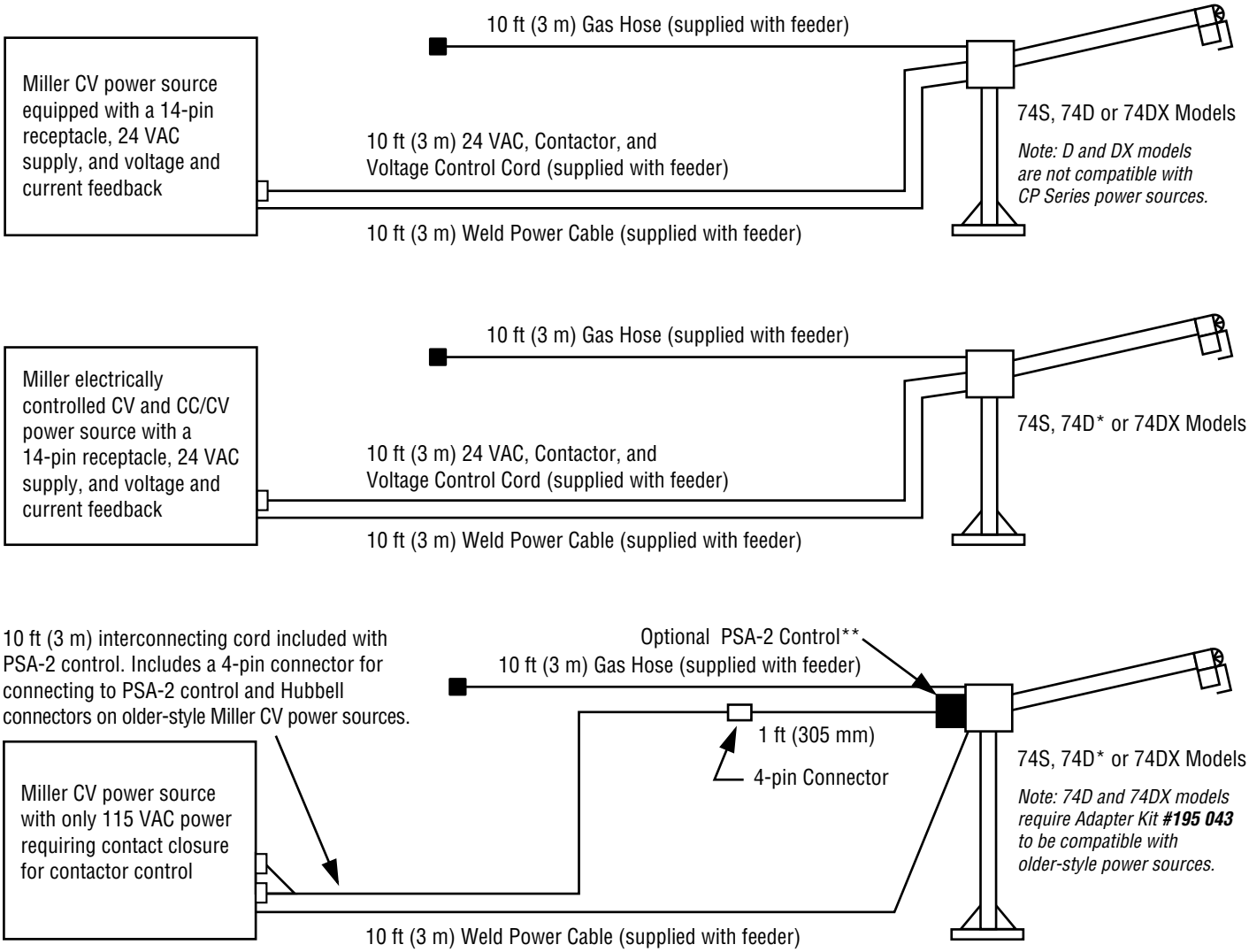
Dual Schedule Switches

DSS-8 #079 693
A two-position trigger switch which attaches to the gun handle and is used in place of the standard trigger for dual scheduling. ***(For 74DX models only.)***

DSS-9 #071 833
A two-position slide switch which attaches to the gun handle and is used to select the desired welding condition for dual schedule purposes. The gun trigger operates as a standard gun trigger. ***(For 74DX models only.)***

Typical Installations

Models: 74S: Standard, basic design
74D: Digital meters
74DX: Deluxe — digital, full-feature


Miller CV power source equipped with a 14-pin receptacle, 24 VAC supply, and voltage and current feedback
10 ft (3 m) Gas Hose (supplied with feeder)
10 ft (3 m) 24 VAC, Contactor, and Voltage Control Cord (supplied with feeder)
10 ft (3 m) Weld Power Cable (supplied with feeder)
74S, 74D or 74DX Models
Note: D and DX models are not compatible with CP Series power sources.
Miller electrically controlled CV and CC/CV power source with a 14-pin receptacle, 24 VAC supply, and voltage and current feedback
10 ft (3 m) Gas Hose (supplied with feeder)
10 ft (3 m) 24 VAC, Contactor, and Voltage Control Cord (supplied with feeder)
10 ft (3 m) Weld Power Cable (supplied with feeder)
74S, 74D* or 74DX Models
10 ft (3 m) interconnecting cord included with PSA-2 control. Includes a 4-pin connector for connecting to PSA-2 control and Hubbell connectors on older-style Miller CV power sources.
Optional PSA-2 Control**
10 ft (3 m) Gas Hose (supplied with feeder)
1 ft (305 mm)
4-pin Connector
Miller CV power source with only 115 VAC power requiring contact closure for contactor control
10 ft (3 m) Weld Power Cable (supplied with feeder)
74S, 74D* or 74DX Models
Note: 74D and 74DX models require Adapter Kit #195 043 to be compatible with older-style power sources.

*When using the D model with Miller power sources that DO NOT have remote voltage control capabilities, i.e., CP type, the voltage control in the feeder IS NOT functional. See Operator's Manual for operating instructions.

**If using the 70 Series feeders with a power source having only 115 VAC supply, the PSA-2 (Power Source Adapter) is required. When using the PSA control, optional remote voltage is not functional. See Operator's Manual for operating instructions.

Notes

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Single-Wire Models				
SS-74S12	**#195 063**	12 ft. With S-74S model wire feeder		
SS-74S16	**#195 064**	16 ft. With S-74S model wire feeder		
SS-74D12	**#195 065**	12 ft. With S-74D model wire feeder		
SS-74D16	**#195 066**	16 ft. With S-74D model wire feeder		
SS-74DX12	**#195 067**	12 ft. With S-74DX model wire feeder		
SS-74DX16	**#195 068**	16 ft. With S-74DX model wire feeder		
Dual-Wire Models (available January 2002)				
DS-74S12	**#195 069**	12 ft. With D-74S model wire feeder		
DS-74S16	**#195 070**	16 ft. With D-74S model wire feeder		
DS-74D12	**#195 071**	12 ft. With D-74D model wire feeder		
DS-74D16	**#195 072**	16 ft. With D-74D model wire feeder		
DS-74DX12	**#195 073**	12 ft. With D-74DX model wire feeder		
DS-74DX16	**#195 074**	16 ft. With D-74DX model wire feeder		
Control Options				
Remote Voltage Control	**#194 988**	Field. Non-digital control *(S-74S model only)*		
	#194 991	Field. Non-digital control *(D-74S model only)*		
Conversion Kit	**#194 989**	Field. S-74S to S-74D		
	#194 992	Field. D-74S to D-74D		
	#195 010	Field. S-74S to S-74DX		
	#195 041	Field. D-74S to D-74DX		
Control Detachment Kit	**#194 914**	Field. 10 ft (3 m) *(S-74S model only)*		
	#194 913	Field. 25 ft (7.6 m) *(S-74S model only)*		
	#194 995	Field. 25 ft (7.6 m) *(D-74S model only)*		
Power Sources				
Invision™ 354 MP and 456MP		See Lit. Index No. DC/23		
Invision™ 456P		See Lit. Index No. DC/20		
Deltaweld® Series		See Lit. Index No. DC/16.2		
XMT® Series		See Lit. Index No. DC/18.8		
Dimension™ Series		See Lit. Index No. DC/19.2		
Mounting Equipment				
Swingpak™ 12 Base	**#183 997**	For 12 ft boom only		
Pipe Posts	**#075 078**	4 ft without base, for 12 ft boom only		
	#079 217	6 ft without base, for 12 ft boom only		
	#149 838	4 ft with base, for 12 ft or 16 ft boom		
	#149 839	6 ft with base, for 12 ft or 16 ft boom		
Accessories				
Adapter Kit	**#195 043**	Makes 70 Series feeder compatible with older-style power sources		
Wire Straightener	**#141 580**	For .035–.045 in (0.9–1.1 mm) diameter wire		
	#141 581	For 1/16–1/8 in (1.6–3.2 mm) diameter wire		
Spool Covers	**#057 607**	For S-74 and left side of D-74 models		
	#090 389	For right side of D-74 models		
Wire Reel Assembly	**#108 008**			
Reel Covers	**#058 256**	For S-74 and left side of D-74 models		
	#091 668	For right side of D-74 models		
Spool Adapter	**#047 141**			
2/0 MIG Welding Accessory Kit	**#173 856**			
Extension Cords		See page 5		
Dual Schedule Switches	**#079 693**	DSS-8 *(74DX models only)*		
	#071 833	DSS-9 *(74DX models only)*		

Date: **Total Quoted Price:**

Distributed by:

Miller®

Litho in USA

XR™ Control

Push-Pull Wire Feed System

Index No. M/1.7
Issued June 2000

Process

MIG (GMAW) Welding

TRUE BLUE® 3YR. WARRANTY

1-year warranty on gun

Note: Drive roll kit must be ordered separately.

XR-Edge Gun **XR-Pistol Gun**

The XR Control push-pull wire feed system now offers the ability to select either an XR-Edge gooseneck-style gun or an XR-Pistol gun for a truly customized system that delivers optimum performance for your desired application.

The XR-A and XR-W Pistol guns have been redesigned with a quick-connect, similar to the XR-Edge guns, for easy connection to the XR Control. The XR-Pistol guns are available in 15 and 30 ft lengths, and the XR-Edge gooseneck-style guns are available in 15, 30 and 50 ft lengths. All guns are available in both air- and water-cooled models.

The wire drive kits are to be **ordered separately** from the guns because the drive rolls are wire size dependent. All wire drive kits consist of gun drive rolls, two push feeder drive rolls, head tube liner, five contact tips, collet nut and a contact tip wrench

A unique solid-state control circuit permits the XR systems to work with most CC, CV, or CC/CV DC welding power sources, giving you true adaptability.

Applications

- Emergency vehicles
- Boat building
- Shipbuilding
- Trucks and trailers
- Railcars
- Snowmobiles
- Watercraft
- Recreational vehicles
- Tool boxes
- Heat exchangers
- Overhead doors
- Sign manufacturers
- Automotive components

Features	Benefits
Air-cooled and water-cooled models	Whether your application is light gauge metals or demanding, high-amperage heavy plate, we've got the model for you.
All gear-driven drive rolls	Both rolls are driving the wire for positive feeding performance, reducing burnbacks and improving arc starts.
Smooth groove drive-roll design	Prevents shaving the wire, which causes build-up in the drive-roll grooves, liner and contact tip. Improved feeding performance, helping to eliminate burnbacks and enhancing arc starts.
True push-pull design	The push feeder motor provides continuous torque to the wire. The gun motor controls the actual wire feed speed at the arc. Each motor works in concert to provide accurate and positive wire feed speed.
Arc starting control	The control has wire run-in speed, which can be adjusted to tune arc starting. This prevents wire stubbing or arc flaring which leads to burnbacks to the contact tip.
Wire jog control	Allows you to thread wire through gun cable without energizing weld output.
Master/gun wire-feed-speed control	Improves resolution, by limiting speed range available at the gun. This makes it easier to fine-tune arc conditions.
Trigger hold	Reduces fatigue by allowing the operator to weld without holding the gun trigger.

XR Control Specifications *(Subject to change without notice.)*

Heavy Industrial CC/CV DC (Use with CC/CV, DC Power Sources.)

Input Power	Wire Speed	Maximum Spool Size Capacity	Dimensions	Net Weight
24 VAC, 50/60 or 100 Hz	70 – 875 IPM (1.8 – 22.2 m/min)	12 in (305 mm)	H: 16 in (406 mm) W: 9-1/4 in (235 mm) D: 21-1/4 in (540 mm)	38 lb (17.2 kg)

Certified by Canadian Standards Association to both Canadian and U.S. Standards. *Conforms to European standards.*

Ordering Information

☞ See back page.

Miller® The Power of Blue.

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

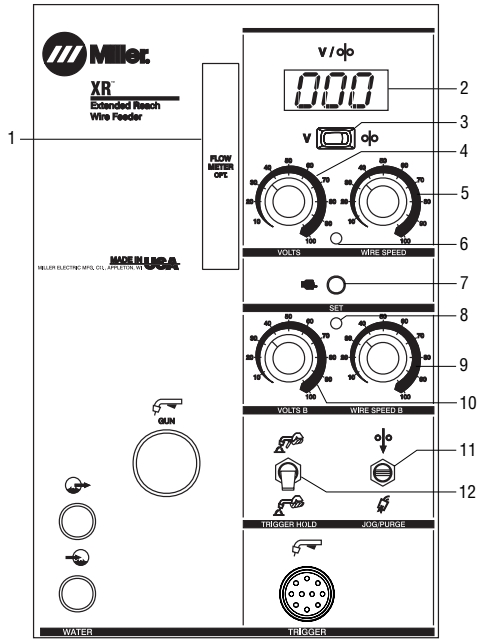
International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

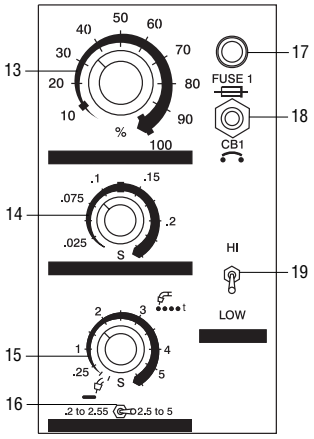
ISO 9001 REGISTERED QUALITY SYSTEM

XR Control

Control Panels



Front Panel



Side Panel

1. Gas Flowmeter*
2. Voltage/Wire Speed Meter*
3. Voltage/Wire Speed Switch*
4. Voltage Control*
5. Wire Speed Control
6. Schedule A Indicator LED*
7. Press To Set Push Button*
8. Schedule B Indicator LED*
9. Wire Speed B Control*
10. Remote Volts B Control*
11. Wire Jog/Gas Purge Switch
12. Trigger Hold Switch
13. Run-In Speed Control
14. Burnback Time Control*
15. Continuous/Spot Time Control*
16. Spot Time Range Switch*
17. Fuse F1
18. Circuit Breaker CB1
19. Motor Torque Switch

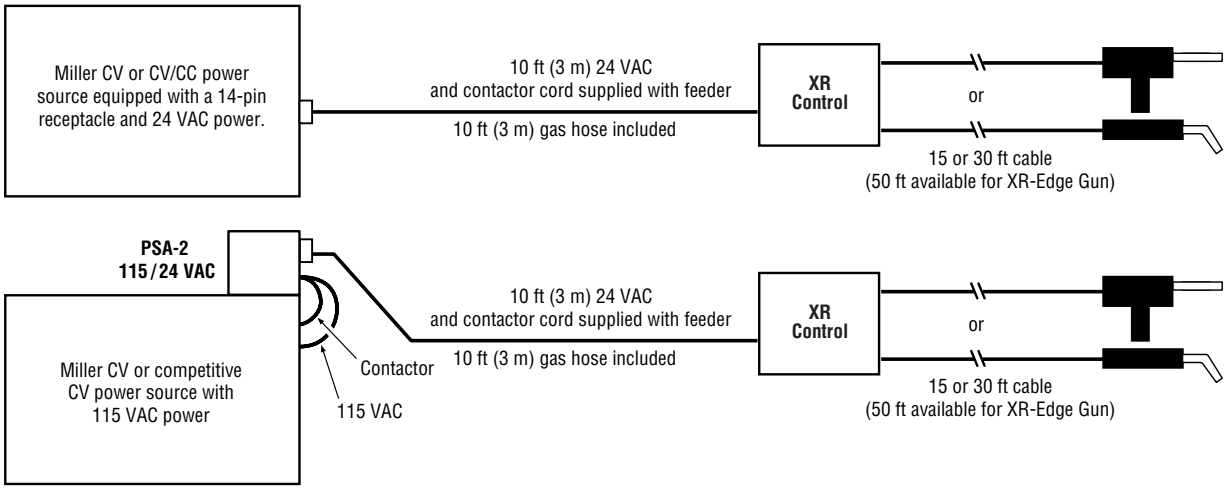
** Optional*

XR Control Drive Roll Kits *(Order from Miller Service Parts.)*

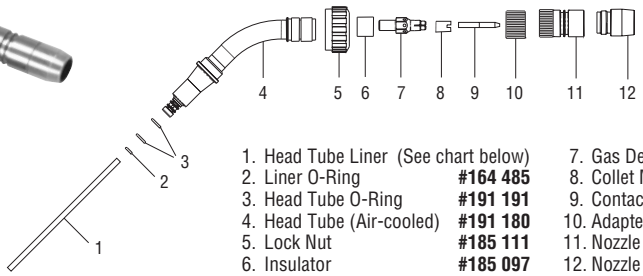
Wire Size	
.030 in (0.8 mm)	**#194 118**
.035 in (0.9 mm)	**#194 118**
.040 in (1.0 mm)	**#196 301**
.047 in (1.2 mm)	**#194 119**
.062 in (1.6 mm)	**#194 119**

Drive roll kits consist of two control drive rolls, insulating washers and installation instructions.

Typical Installations *Refer to Owner's Manual for complete installation instructions.*


Miller CV or CV/CC power source equipped with a 14-pin receptacle and 24 VAC power.
10 ft (3 m) 24 VAC and contactor cord supplied with feeder
10 ft (3 m) gas hose included
XR Control
or
15 or 30 ft cable
(50 ft available for XR-Edge Gun)
PSA-2
115/24 VAC
Miller CV or competitive CV power source with 115 VAC power
Contactor
115 VAC
10 ft (3 m) 24 VAC and contactor cord supplied with feeder
10 ft (3 m) gas hose included
XR Control
or
15 or 30 ft cable
(50 ft available for XR-Edge Gun)

XR-Edge Gun *(Note: Air-cooled gun shown)*



1. Head Tube Liner (See chart below)
2. Liner O-Ring **#164 485**
3. Head Tube O-Ring **#191 191**
4. Head Tube (Air-cooled) **#191 180**
5. Lock Nut **#185 111**
6. Insulator **#185 097**
7. Gas Defuser **#185 110**
8. Collet Nut **#136 748**
9. Contact Tip (See chart below)
10. Adapter Jam Nut **#185 102**
11. Nozzle Adapter **#185 105**
12. Nozzle (Standard) **#185 100**

Features	Benefits
All gear-driven drive rolls	Both rolls are driving the wire for positive feeding performance, reducing burnbacks and improving arc starts.
Smooth groove drive-roll design	Prevents shaving the wire, which causes build-up in the drive-roll grooves, liner and contact tip. Improved feeding performance, helping to eliminate burnbacks and enhancing arc starts.
Patent-pending gas delivery	Reduce weld clean-up and repair by improving shielding gas coverage. This is accomplished through reduction of atmospheric contamination in the gas delivery system.
Gun head tube rotates 360 degrees	Reduces operator fatigue by providing a simple means to position the gun comfortably for various welding positions.
Quick-connect of gun to controller	Reduces time to set-up the welding equipment and reduces maintenance.
Replaceable feed cable liner	Reduces parts cost and service time by providing a simple means of removing and replacing the cable liner and not the complete feed cable.
Easy access to drive assembly	Reduces service time by providing a simple means of removing and replacing the drive rolls or performing routine maintenance without disassembly of the gun.
Replaceable head tube	Reduces service time by providing a simple means of replacing the head tube or performing routine maintenance without disassembly of the gun.
Adjustable gun barrel	Allows operator to easily vary contact tip-to-nozzle position.
Quick-change, collet-type contact tip	Easy to change contact tip when the need arises.

XR-Edge Gun Specifications *(Subject to change without notice.)*

Model	Welding Output Range	Electrode Wire Diameter Capacity	Wire Speed	Maximum Spool Size Capacity	Dimensions	Net Weight
XR-A Edge Gun	Air: 200 A at 100% duty cycle	.030–.047 in (0.8–1.2 mm) aluminum wire	70–875 IPM (1.8–22.2 m/min)	12 in (305 mm)	H: 5 in (127 mm) W: 2-1/2 in (64 mm) L: 17 in (432mm)	2.5 lb (1.1 kg)
XR-W Edge Gun	Water: 400 A at 100% duty cycle					

A=Air-Cooled W=Water-Cooled *Certified by Canadian Standards Association to both Canadian and U.S. Standards.* *Conforms to European standards.*

XR-Edge Gun Consumables *(Order from Miller Service Parts.)*

Contact Tips			Gun Head Tube Liner	Gun Drive Roll Kits	Gun Drive Roll Kits (Insulated)	Wire Drive Kits (One Required)		Feed Cable Liners	
Wire Size	Standard Tip I.D.	Optional (Smaller) Tip I.D.				Standard	Optional (Insulated)	Length	Aluminum
.030 in (0.8 mm)	.041 in (1.0 mm) **#135 428**	.036 in (0.9 mm) **#135 427**	**#193 793 Air #197 729 Water**	**#194 114**	**#198 434**	**#193 520**	**#198 385**	15 ft (4.6 m)	**#191 064**
.035 in (0.9 mm)	.052 in (1.3 mm) **#135 430**	.041 in (1.0 mm) **#147 314**		**#194 115**	**#198 435**	**#193 521**	**#198 376**	30 ft (9 m)	**#191 065**
.040 in (1.0 mm)	.052 in (1.3 mm) **#135 430**	—		**#196 302**	**#198 436**	**#196 300**	**#198 375**	50 ft (15.2 m)	**#191 066**
.047 in (1.2 mm)	.061 in (1.5 mm) **#135 424**	.052 in (1.3 mm) **#135 429**	**#193 792 Air #197 730 Water**	**#194 116**	**#198 437**	**#193 522**	**#198 374**		
.062 in (1.6 mm)				**#194 117**	**#198 438**		**#198 373**		

The optional contact tips listed are for applications where a smaller I.D. tip is preferred. All contact tips are stamped with wire size and the tip I.D. For example: .035/52 designates .035 in wire and .052 in tip I.D. ***Drive roll kits*** *consist of drive rolls, idler roll screw and conductive grease.* ***Wire drive kits*** *consist of gun drive rolls, two control drive rolls, two head tube liners (one air liner [7.18 in] and one water liner [7.8 in]), five contact tips, collet nut, and contact tip wrench.*

XR-Edge Gun Standard Nozzles *(Order from Miller Service Parts.)*

#185 100
5/8 in (16 mm) orifice
(Standard with air-cooled gun)

NEW!
#197 728
5/8 in (16 mm) orifice
(Standard with water-cooled gun)

#193 790
1/2 in
(13 mm) orifice

#050 116
13/16 in (21 mm) orifice
Note: Nozzle adapter kit #193 794 required.

XR-Edge Gun Spot Nozzles *(Order from Miller Service Parts.)*

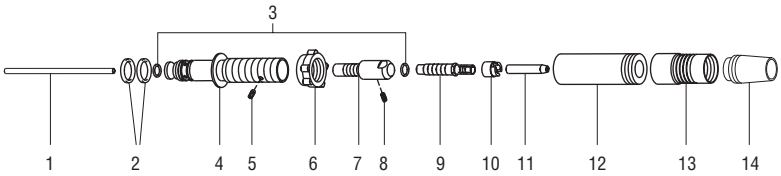
#009 925
Outside corner
Note: Nozzle adapter kit #193 794 required.

#000 443
Inside corner
Note: Nozzle adapter kit #193 794 required.

#000 442
Flat 15/16 in
(24 mm) orifice
Note: Nozzle adapter kit #193 794 required.

#004 466
Flat 1-3/8 in
(35 mm) orifice
Note: Nozzle adapter kit #193 794 required.

XR-Pistol Gun *(Note: Air-cooled gun shown)*



1. Head Tube Liner	(See chart below)	8. Set Screw (Air-cooled)	**#604 612**
2. O-Ring .614 ID	**#134 800**	9. Contact Tip Adapter	**#136 680**
3. O-Ring .176 ID	**#164 485**	10. Collet Nut	**#136 748**
4. Head Tube Adapter (Air-cooled)	**#164 423**	11. Contact Tip	(See chart below)
5. Set Screw	**#602 172**	12. Barrel Extension (Air-cooled)	**#156 821**
6. Jam Nut (Air-cooled)	**#058 685**	13. Nozzle Extension (Air-cooled)	**#144 862**
7. Head Tube (Air-cooled)	**#164 422**	14. Nozzle (Standard)	**#050 622**

Features	Benefits
New! **Quick-connect of gun to controller**	Reduces time to set-up the welding equipment and reduces maintenance.
Replaceable head tube	Reduces service time by providing a simple means of replacing the head tube or performing routine maintenance without disassembly of the gun.
Adjustable gun barrel	Allows operator to easily vary contact tip-to-nozzle position.
Quick-change, collet-type contact tip	Easy to change contact tip when the need arises.
Replaceable feed cable liner	Reduces parts cost and service time by providing a simple means of removing and replacing the cable liner and not the complete feed cable.
Easy access to drive assembly	Reduces service time by providing a simple means of removing and replacing the drive rolls or performing routine maintenance without disassembly of the gun.

XR-Pistol Gun Specifications *(Subject to change without notice.)*

Model	Welding Output Range	Electrode Wire Diameter Capacity	Wire Speed	Maximum Spool Size Capacity	Dimensions	Net Weight
XR-A Gun	Air: 200 A at 100% duty cycle	.030–1/16 in (0.8–1.6 mm) aluminum wire	70–875 IPM (1.8–22.2 m/min)	12 in (305 mm)	H: 7-3/8 in (187 mm) W: 1-7/8 in (48 mm) L: 10-5/8 in (270 mm)	2.4 lb (1.1 kg)
XR-W Gun	Water: 400 A at 100% duty cycle					2.9 lb (1.3 kg)

A=Air-Cooled W=Water-Cooled *Certified by Canadian Standards Association to both Canadian and U.S. Standards.* *Conforms to European standards.*

XR-Pistol Gun Consumables *(Order from Miller Service Parts.)*

Contact Tips			Gun Head Tube Liner	Drive Rolls	Wire Drive Kits (One Required)
Wire Size	Standard Tip I.D.	Optional (Smaller) Tip I.D.		Dual Groove for One Wire Size	
.030 in (0.8 mm)	.041 in (1.0 mm) **#135 428**	.036 in (0.9 mm) **#135 427**	**#136 682**	**#183 357**	**#198 384**
.035 in (0.9 mm)	.052 in (1.3 mm) **#135 430**	.041 in (1.0 mm) **#147 314**	**#136 682**	**#183 357**	**#198 384**
.040 in (0.9 mm)	—	—	—	—	**#198 383**
.047 in (1.2 mm)	.061 in (1.5 mm) **#135 424**	.052 in (1.3 mm) **#135 429**	**#136 683**	**#183 358**	**#198 382**
.062 in (1.6 mm)	.081 in (2.1 mm) **#135 425**	.073 in (1.9 mm) **#135 426**	**#136 683**	**#183 358**	**#198 381**

Feed Cable Liners	
Length	Aluminum
15 ft (4.6 m)	**#191 064**
30 ft (9 m)	**#191 065**
50 ft (15.2 m)	**#191 066**

Other size tips must be ordered separately. The optional contact tips listed are for those applications where a smaller I.D. tip is preferred. All contact tips are stamped with wire size and the tip I.D. For example: .035/52 designates .035 in wire and .052 in tip I.D. ***Wire drive kits*** *consist of gun drive rolls, two control drive rolls, head tube liner, five contact tips, collet nut, and contact tip wrench.*

XR-Pistol Gun Standard Nozzles *(Order from Miller Service Parts.)*

#050 622
5/8 in (16 mm) orifice
(Standard with gun)

#050 116
13/16 in
(21 mm) orifice

#050 115
1/2 in
(13 mm) orifice

XR-Pistol Gun Spot Nozzles *(Order from Miller Service Parts.)*

#009 925
Outside corner

#000 443
Inside corner

#000 442
Flat 15/16 in
(24 mm) orifice

#004 466
Flat 1-3/8 in
(35 mm) orifice

XR Gun Accessories

Cable Cover
#118 677 15 ft
#118 678 30 ft
Protects gun hose and cable assembly from wear and abrasion. Features a full length zipper.

50 ft Cable Cover
Not available for 50 ft gun.

Hardwire Liner Kits for Steel and Stainless
#198 380 For 15 ft air-cooled gun
#198 379 For 30 ft air-cooled gun
#198 378 For 15 ft water-cooled gun
#198 377 For 30 ft water-cooled gun
For XR-Pistol and XR-Edge gun. Kits consist of gun head tube liner and feed cable liner. Recommend using .030–.045 in mild steel, flux cored, or stainless steel electrode wire.

SX Heat Shield #131 103
For XR-Pistol. Helps protect operator's hand from spatter and reflected heat.

1 lb (0.5 kg) Spool Canister #132 230
Ideal for use with XR guns if a small job arises requiring a different wire size and/or wire type that does not justify a 12 in (305 mm) spool of wire. The XR feed cable is removed if the spool canister is being used. (Canister accommodates 4 in [102 mm] spools of wire.)

XR-Pistol Gun Barrels (Air-Cooled)

SX-A 50 Degree Curved Barrels
#147 175 6 in (152 mm)
#147 176 10 in (254 mm)
Used with .030–1/16 in (0.8–1.6 mm) wire. Kits supplied with two liners that accommodate all wire sizes.

SX 12 in Flex Head Kit #131 104
For .030–1/16 in (0.8–1.6 mm) wire. Used in place of the standard straight barrel. Flexible head tube bends 60 degrees in any direction for easier joint access and improved operator comfort. Supplied with two Teflon liners and one contact tip for each wire size listed.

3 in Head Tube Extension #137 787
Extends the standard gun barrel 3 in (72 mm) when a longer reach is required. The head tube extension is supplied with two liners to accommodate all wire sizes.

Replacement Teflon Liners for Air-Cooled Barrels *(Order from Miller Service Parts.)*

For 6 in Curved Barrel
#144 858 .030 and .035 in (0.8 and 0.9 mm) wire
#144 859 .047 and 1/16 in (1.2 and 1.6 mm) wire

For 10 in Curved Barrel
#144 854 .030 and .035 in (0.8 and 0.9 mm) wire
#144 855 .047 and 1/16 in (1.2 and 1.6 mm) wire

For Flex Head
#138 255 .030 and .035 in(0.8 and 0.9 mm) wire
#132 682 3/64 and 1/16 in (1.2 and 1.6 mm) wire

For Head Tube Extension
#138 223 .030 and .035 in (0.8 and 0.9 mm) wire
#138 224 3/64 and 1/16 in (1.2 and 1.6 mm) wire

SX-A 50 Degree Curved Nozzle Kit #147 174
Attaches to standard gun barrel assembly and is ideal for access to confined weld joint areas. Used with .030–1/16 in (0.8–1.6 mm) wire. Kit includes two of each size contact tips to accommodate all wire sizes. Uses standard straight barrel head tube liner.

Replacement Contact Tips for Curved Nozzle
(Order from Miller Service Parts.)
#148 155 .030 and .035 in (0.8 and 0.9 mm) wire
#148 154 .047 in (1.2 mm) wire
#148 156 1/16 in (1.6 mm) wire

XR-Pistol Gun Barrels (Water-Cooled)

SX-W 50 Degree Curved Barrels
#130 843 6 in (152 mm)
#130 842 10 in (254 mm)
Used with .030–1/16 in (0.8–1.6 mm) wire. Kits supplied with two liners that accommodate all wire sizes.

SX-W 10 in Straight Barrel #130 841
Used with .030–1/16 in (0.8–1.6 mm) wire. Kits supplied with two liners that accommodate all wire sizes.

Replacement Teflon Liners for Water-Cooled Barrels *(Order from Miller Service Parts.)*

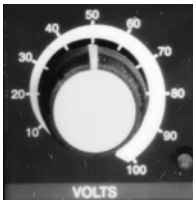
For 6 in Curved Barrel
#144 858 .030 and .035 in (0.8 and 0.9 mm) wire
#144 859 .047 and 1/16 in (1.2 and 1.6 mm) wire

For 10 in Curved Barrel
#144 854 .030 and .035 in (0.8 and 0.9 mm) wire
#144 855 .047 and 1/16 in (1.2 and 1.6 mm) wire

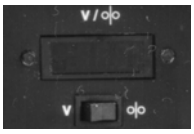
For 10 in Straight Barrel
#144 857 .030 and .035 in (0.8 and 0.9 mm) wire
#144 856 .047 and 1/16 in (1.2 and 1.6 mm) wire

XR Control Options

**Factory option available only in XR Control packages — see Ordering Information on page 8.*



Voltage Control* #194 027 Field
Allows voltage adjustment at the current XR Control when used with Miller electrically controlled, constant-voltage DC power sources that have a 14-pin receptacle.



Digital Display V/WFS* #193 274 Field
Allows wire feed speed to be preset and displayed. Will also monitor voltage while welding. If used with current manufactured Miller CV or CC/CV power sources (excluding CPs) and the optional voltage control or dual schedule control is used, the arc voltage can also be preset on the digital display. Includes back-lit LCD digital display that is easy to read in virtually any lighting condition. A selector switch allows the display to switch between wire feed speed and voltage.

Dual Schedule Control* #193 276 Field
Allows two different welding conditions (voltage and wire feed speed) to be used on the same wire. This is ideal when different heat settings are required or when the need arises to change conditions while welding, i.e. different material thickness, out of position welding, etc. Is also ideal for use as a start control or crater fill control.

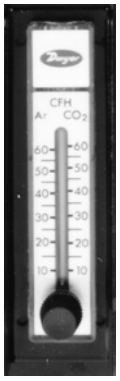
Note: The Digital Display option is required to use the Dual Schedule. Only for use with Miller CV or CC/CV power sources. Dual Schedule Switch required.

Dual Schedule Switch

DSS-30 #193 271 Field
For 15 ft (4.6 m) and 30 ft (9 m) guns

DSS-50 #193 272 Field
For 50 ft (15.2 m) gun

Required to operate the dual schedule control. A two position slide switch that can be positioned at the XR-Edge gun to remotely select schedule A or B conditions.



Gas Flowmeter*
#193 278 Field
#197 793 Field w/CE
Monitors and adjust gas flow at the XR Control.

Note: Gas pressure must be controlled at the primary gas supply with the use of a regulator.

Spot Weld/Burnback Control #193 279 Field
Provides up to 5 seconds of spot weld time and 0 (zero) to 0.25 seconds of burnback time.

Water Flow Shutdown Switch #194 039 Field
For use with water cooled guns only. Protects the water-cooled gun from overheating if water is not present or water stops flowing to the gun.

XR Control Accessories

Optima™ MIG (GMAW) Pulse Control #043 389
For Invision, Phoenix 456P and XMT 304 CC/CV. A multipurpose, microprocessor-based pulse control for synergic MIG (wire welding or GMAW), manual MIG pulsing or standard MIG welding. Use this control with all above power sources and any Miller wire feeder. Includes 25 ft (7.6 m) cord with 14-pin plug.

PSA-2 Control #141 604
Required when using the XR control with power sources having only 115 VAC available. Mounts at power source and includes a 10 ft (3 m) 115 VAC cord and contactor cord with Hubbell connectors. A simple modification in the PSA-2 control also allows it to be used with competitive constant voltage power sources requiring a contact closure for contactor control. The PSA-2 includes a 14-pin receptacle for direct connection of the standard interconnecting cord and optional extension cords. Bracket included for side mounting to the power source.

Note: When using the PSA-2 control, the optional Remote Voltage Control is not functional.

Extension Cords
#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (22.9 m)
Provides 14-pin, 24 VAC, contactor and voltage control. Can be added to the standard 10 ft (3 m) feeder cord to extend feeder farther from power source.

Water Coolant Systems

Coolmate™ 3	**#043 007**	115 VAC
Coolmate™ 3	**#043 008**	230 VAC
Coolmate™ V3	**#043 009**	115 VAC
Coolmate™ 4	**#042 288**	115 VAC

For use with water-cooled guns. Refer to Lit. Index No. AY/7.2 for additional coolant system information.

Coolant #043 810
Sold in cases of four 1-gallon recyclable plastic bottles.

Typical Welding Systems for Aluminum MIG Welding

Conventional Aluminum MIG System
CP-252TS with XR™ Control
and 30 ft XR-A Edge Gun
#950 704

Aluminum MIG and Pulsed MIG System
Invision™ 354MP with XR™ Control
and 30 ft XR-A Edge Gun
#950 705
Note: For high-current pulse welding, water-cooled system recommended.

Ordering Information and System Checklist

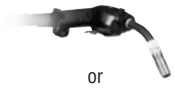
How to Assemble a System

1

Pick a Control
Standard or
with Options

2

Pick a Gun Style
Gooseneck or Pistol
15, 30 or 50 ft Cable
Air- or Water-Cooled



or

3

Pick a Wire Drive Kit
.030, .035, .040, .047 or .062 in
Wire drive kits consist of gun drive rolls, two push feeder drive rolls, head tube liner, five contact tips, collet nut and a contact tip wrench.

Equipment	Stock No.	Description	Qty.	Price
Important: The XR Control and specific type and length gun must be ordered separately. Also order proper wire drive kit below for the size wire being used.				
XR™ Control	**#181 538**	Standard model		
	#181 538-01-1	Standard model w/**CE**		
	#181 538-03-3	W/digital display, voltage control & gas flow meter		
	#181 538-04-2	W/digital display, voltage control & gas flow meter w/**CE**		
	#181 538-03-2	W/digital display, dual schedule & gas flow meter		
	#181 538-04-1	W/digital display, dual schedule & gas flow meter w/**CE**		
XR-A Edge Gun (Air-Cooled)	**#181 534**	15 ft (4.6 m) cable		
	#181 534-01-1	15 ft (4.6 m) cable w/**CE**		
	#181 535	30 ft (9 m) cable		
	#181 535-01-1	30 ft (9 m) cable w/**CE**		
	#181 537	50 ft (15.2 m) cable		
	#181 537-01-1	50 ft (15.2 m) cable w/**CE**		
XR-W Edge Gun (Water-Cooled)	**#181 531**	15 ft (4.6 m) cable		
	#181 531-01-1	15 ft (4.6 m) cable w/**CE**		
	#181 532	30 ft (9 m) cable		
	#181 532-01-1	30 ft (9 m) cable w/**CE**		
	#181 533	50 ft (15.2 m) cable		
	#181 533-01-1	50 ft (15.2 m) cable w/**CE**		
XR-A Pistol Gun (Air-Cooled)	**#198 127**	15 ft (4.6 m) cable. **New with quick-disconnect**		
	#198 128	30 ft (9 m) cable. **New with quick-disconnect**		
XR-W Pistol Gun (Water-Cooled)	**#198 129**	15 ft (4.6 m) cable. **New with quick-disconnect**		
	#198 130	30 ft (9 m) cable. **New with quick-disconnect**		
XR-Edge Gun Wire Drive Kits (One Required — See page 3 for Insulated Wire Drive Kits)	**#193 520**	.030 in (0.8 mm)		
	#193 521	.035 in (0.9 mm)		
	#196 300	.040 in (1.0 mm)		
	#193 522	.047 in (1.2 mm)		
XR-Pistol Gun Wire Drive Kits (One Required)	**#198 384**	.030/.035 in (0.8/0.9 mm)		
	#198 383	.040 in (1.0 mm)		
	#198 382	.047 in (1.2 mm)		
	#198 381	.062 in (1.6 mm)		
Options				
CP-252TS with XR Control and XR-Edge Gun Package	**#950 704**	Complete conventional aluminum MIG package		
Invision 354MP with XR Control and XR-Edge Gun Package	**#950 705**	Complete aluminum MIG and pulsed MIG package		
Voltage Control	**#194 027**	Field		
Digital Display V/WFS	**#193 274**	Field		
Dual Schedule Control	**#193 276**	Field		
Dual Schedule Switch	**#193 271**	Field. For 15 ft (4.6 m) and 30 ft (9 m) guns		
	#193 272	Field. For 50 ft (15.2 m) gun		
Gas Flowmeter	**#193 278**	Field		
	#193 278-01-1	Field w/**CE**		
Spot Weld/Burnback Control	**#193 279**	Field		
Water Flow Shutdown Switch	**#194 039**	Field		
Accessories				
Optima MIG Pulse Control	**#043 389**			
PSA-2 Control	**#141 604**	For use with older 115 V power sources		
Extension Cords		See XR Control Accessories on page 6		
Water Coolant Systems		See Lit. Index No. AY/7.2		
Cable Cover	**#118 677**	15 ft (4.5 m)		
	#118 678	30 ft (9 m)		
SX Heat Shield	**#131 103**	For XR-Pistol gun only		
Spool Canister	**#132 230**			
XR-Pistol Gun Barrels		See page 5		

Date: **Total Quoted Price:**

Recommended Power Sources*

Regency® 250	Lit. Index No. DC/12.6
CP-252TS	Lit. Index No. DC/13
Deltaweld® Series	Lit. Index No. DC/16.2
Shopmaster™	Lit. Index No. AD/2.3
XMT® 304	Lit. Index No. DC/18.8
Invision™ 354 MP	Lit. Index No. DC/23
Trailblazer® 251	Lit. Index No. ED/4.5
Miller Air Pak™	Lit. Index No. ED/10.5
PipePro™	Lit. Index No. ED/10.6
Trailblazer® 300D NT	Lit. Index No. ED/4.6

**other power sources may be used*

Important note: *The products and descriptions mentioned in this literature are for use with XR Control systems with serial #KK309906 or higher. To confirm compatibility of any products listed here with older equipment, please contact the factory.*

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